wideye™
liberating communications

SABRE™ I
User Guide

bgan inmarsat

www.wideye.com.sg

Table of Contents

Prefixs.....1-3

Chapter 1 Product Overview

1.1 Key Features.....5
1.2 Unpacking.....5-6
1.3 Contents of Product CD.....7
1.4 System Requirement.....7-8

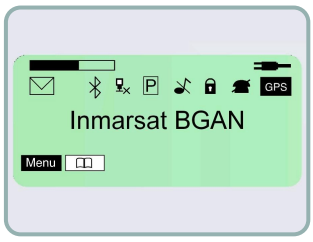
Chapter 2 Getting To Know The SABRE™ I

2.1 The SABRE™ I.....8
2.2 Icons Used On The Display.....9-10
2.3 Input Methods.....11

Chapter 3 Setting Up The SABRE™ I

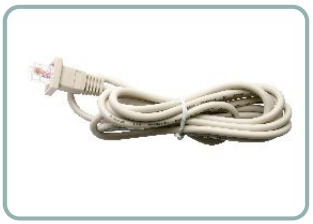
3.1 Inserting The SIM Card.....12
3.2 Installing The Battery.....12
3.3 Charging The Battery.....12
3.4 Powering Up And Registering To Network.....13-14
3.5 Connection Diagram.....15
3.6 Installation of Drivers and Applications on PC.....16-21
3.7 SABRE™ I Software Utilities.....22-27
3.8 DUN Client Installation.....27-30
(Optional if using Launchpad)-Window XP
3.9 DUN Client Installation.....30-32
(Optional if using Launchpad)-Window 2000

Chapter 4 Using The SABRE™ I

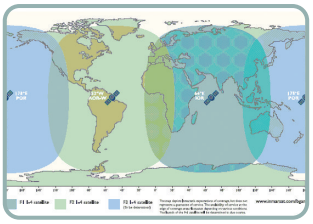


4.1 Call Functions.....34
4.2 Call Register.....34
4.3 Bluetooth Settings on SABRE™ I.....35-36
4.4 Using Wireless Devices with SABRE™ I.....37-38
4.5 Configuring the SABRE™ I for Network Access.....38-41
(via built in LCD Interface)-(Configuring for standard connection)
4.6 Settings.....42-46
4.7 Firmware Upgrade.....47-48

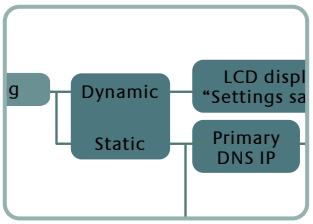
Table of Contents



Appendix 1
Technical Specifications.....49-50



Appendix 2
The BGAN System.....52



Appendix 3
SABRE™ I LCD Menu Tree Flow Chart.....53-60

Appendix 4
Accessories.....61-62

Appendix 5
Accessory User Guide.....63-68

Appendix 6
Voice Mail Access.....69

Appendix 7
Troubleshooting Guide.....70-71

Prefix

Federal Communication Commission Notice

FCC Identifier: QY9-SABRE1WE

USE CONDITIONS:
This device complies with part 15 of the FCC Rules. Operation is subject to the following two Conditions:
1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.
If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

IMPORTANT NOTE :
EXPOSURE TO RADIO FREQUENCY RADIATION

This Device complies with FCC & IC radiation exposure limits set forth for an uncontrolled environment. The Antenna used for this transmitter must be installed to provide a separation distance of atleast 100cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter

FCC CAUTION: Any Changes or modifications not expressly approved by the manufacturer could void the user's authority, which is granted by FCC , to operate this satellite terminal Wideye SABRE I

Industry Canada Statement:

IC Identifier : 5023A-SABRE1WE

This device complies with Radio standard specification RSS −210 & RSS −170 of Industry Canada Rules. Operation is subject to the following two conditions:
1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

IMPORTANT NOTE :
Radiation Exposure Statement:

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. This antenna used for this transmitter must be installed to provide a separation distance of at least 100cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

Declaration of Conformity:

Addvalue Communications Pte Ltd, 190 Changi Road , #02-02 MDIS Building ,Singapore-419974 declares under our sole responsibility that the Product, brand name as Wideye and model : SABRE I (Satellite Broadband Communicator) a GMPCS Terminal to which this declaration relates, is in conformity with the following standards and/or other normative documents:

ETSI EN 301 681, ETSI EN 301 489-1, ETSI EN 301 489-17, ETSI EN 301 489-20, ETSI EN 300 328, EN 50385, EN 50371 , IEC 60950-1 AND EN 60950-1, ITU-R M.1480

We hereby declare that all essential radio test suite have been carried out and that the above named product is in conformity to all the essential requirements of Directive 1999/5/EC.

The Conformity Assessment procedure referred to Article 10 and detailed in Annex [III] or [IV] of Directive 1999/5/EC has been followed with involvement of the following notified body(ies):

TIMCO ENGINEERING,INC. , P.O BOX 370,NEW BERRY ,FLORIDA 32669.

Identification mark: 1177 (Notified Body number)

The technical documentation relevant to the above equipment wil be held at :

- Addvalue Communications Pte Ltd, 190 Changi road,#02-02 MDIS Building, Singapore-419974.
- Signed by Tan Khai Pang (Chief Technology Officer, March 27, 2007) and Prabakar Kuttaniseeri (Assistant Manager-Quality Engineering, March 27, 2007).

Safety Summary

The following general safety precautions must be observed during all phases of operation, service and repair of this equipment.
Failure to comply with these precautions or with specific warnings elsewhere in this manual violates safety standards of design, manufacture and intended use of the equipment.
Addvalue assume no liability for the customer's failure to comply with these requirements.

Do Not Operate in an Explosive Atmosphere

Do not operate the equipment in the presence of flammable gases or fumes.
Operation of any electrical equipment in such an environment constitutes a definite safety hazard.

Keep Away from Live Circuits

Operating personnel must not remove equipment covers. Component replacement and internal adjustment must be made by qualified maintenance personnel. Do not replace components with the power cable connected.Under certain conditions, dangerous voltages may exist even with the powercable removed. To avoid injuries, always disconnect power and discharge circuits before touching them.

Do Not Service Alone

Do not attempt internal service or adjustments unless another person, capable of rendering first aid resuscitation, is present.

Do Not Substitute Parts or Modify Equipment

Because of the danger of introducing additional hazards, do not substitute parts or perform any unauthorized modification to the equipment.

Keep Away from Active Antenna Front

This device emits radio frequency energy when in transmit mode.
To avoid injury, keep a minimum safety distance of 1meter from the antenna front. See also the below section **Antenna Safety Instructions.**

CAUTION
Risk of Explosion if Battery is Replaced by an Incorrect Type.
Dispose of Used Batteries According to the Instructions.

Batteries and Accessories

Use Addvalue approved batteries and accessories only. Use of non-approved batteries and accessories may result in loss of performance, damage to Satellite Terminal, explosion, fire, electrical shock or injury.

Antenna Safety Instructions
Antenna Minimum Safe Distance: 100 cm

Radiation Warning

High levels of radio frequency radiation are considered health hazardous. Although no single value of " safe radiation level " has been agreed upon by all countries ,the American National Standards Institute (ANSI/LEEE C 95.1-1992) recommends that people should not exposed to radiation stronger than 1 milliwatt per square centimeterat the frequencies used in the Addvalue's Wideye SABRE I terminal. Accordingly ,the operator of the terminal should ensure that the area extending 1meter from the Front of the antenna be kept clear of personnel when the terminal is transmitting.

The antenna is built-in within SABRE™ I. You, as the qualified end-user of this radio device must control the exposure conditions of bystanders to ensure the minimum separation distance (above) is maintained between the antenna and nearby persons for satisfying RF Exposure compliance. The operation of this transmitter must satisfy the requirements of Occupational/Controlled Exposure Environment, for work-related use. Transmit only when person(s) are at least the minimum distance from the front face of the antenna.

WARNING! Maintain a separation distance from the antenna to a person(s) of at least 100 cm.

OBTAINING LICENSING FOR INMARSAT TERMINALS

Under rights given under ITU Radio Regulations, local telecommunications administrations establish and enforce national rules and regulations governing types of emissions, power levels, and other parameters that affect the purity of signal, which may be radiated in the various frequency bands of the radio spectrum.

To legally operate an Inmarsat terminal , it is necessary to obtain permission from the local telecommunications regulatory authorities of the country you are oerating ith in. using your terminal in any country without permission causes you to run the risk of confiscation of the terminal or legal authorities. Normal proactice for taking telecommunications into another country is to apply for a license before travel.If a license has not been obtained before travel, the equipment may be put in to storage by local authorities until such time license is obtained.

Release date: 28th February 2007

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1 Product Overview

SABRE™ I is a satellite broadband modem that is designed for portable use. It utilizes the Inmarsat-4 satellite to provide virtual global coverage for voice and data services. The SABRE™ I is equipped with an integrated Bluetooth access point plus Ethernet and RJ11 Corded Analog Handset ports, delivering voice and data services through different choices of interfaces.

	Data Service	Voice Service
Bluetooth	Yes	Yes
Ethernet	Yes	Yes
RJ11	No	Yes

Configuration Interface

The user may configure SABRE™ I via several different configuration interfaces:
1) Inmarsat LaunchPad,
2) the Web Console (not available in this release),
3) the build in Front panel LCD
4) the optional BT Handset (not available in this release).

While LaunchPad and Web Console (not available in this release) provide full configuration and setup functions over the computer screen, the built-in, front panel LCD user interface and the BT Handset support mandatory functions on an LCD that is built into SABRE™ I and BT Handset respectively.

Ethernet

The Ethernet interface of SABRE™ I supports two operating modes, the Bridge Mode and the Router Mode. In Bridge Mode, the user is required to configure the computer with account information and to perform Bridge Mode authentication using dial-up networking. In Router Mode, the user uses standard TCP/IP over Ethernet to connect to the Internet.

CAUTION
While the Router Mode provides convenience to connect to the Internet, it is important for the user to be aware that the last terminal that is configured with Router Mode would allow any user to connect to the Internet via the Ethernet port and airtime would be consumed in the owner's account.

Bluetooth Access Point

SABRE™ I is integrated with a Class 1 Bluetooth Access Point, supporting Bluetooth devices within up to 100 meters in range. The user may pair SABRE™ I with optional Bluetooth Headset, Handset or Data Dongle for wireless connectivity.

RJ11 Corded Analog Handset

With the support for external analog phone, the user can easily connect the prescribed Wideye Corded Analog Handset (with Complex Impedance – ETSI EG201 188) to SABRE™ I for making a voice call. It is simple and straightforward.

1.1 Key Features

I. Simultaneous voice & data communications
II. Data rate of up to 384 kbps
III. Built-in Ethernet, Bluetooth and RJ11 interfaces
IV. Supports voice, email, messaging, VPN, FTP, VoIP, FoIP and video media streaming
V. Designed for the non-technical user
VI. Swiveled antenna mount which facilitates easy pointing
VII. Built-in menu driven graphical user interface for use without a laptopa
VII. Supplied with a support kit – primary battery, communication cables (RJ 11, RJ 45), power cord and power adapter.
IX. Light weight, robust and reliable
X. Wide range of accessories to meet your needs.

1.2 Unpacking

When unpack the following items should be in the package. If any of the items are missing from the package, please contact your reseller from whom you purchased the equipment.

Package Contents:

Index		Description	Quantity
1.		SABRE™ I Main Unit	1
2.		Primary Battery Pack	1
3.		IP54-compliant 6P4C RJ11 Telephone Cord (1.8m)	1
4.		IP54-compliant 8P4C RJ45 Cat.5 Network Cable (1.5m)	1
5.		AC/DC Power Adapter	1
6.		2-pin Euro-type Power Cord	1

7.		2-pin US-type Power Cord	1
8.		3-pin UK-type Power Cord	1
9.		Product CD (inclusive of drivers, LaunchPad & all documentations)	1
10.		Quick Start Guide (printed)	1

1.3 Contents of Product Cd

The SABRE™ I product CD comes with the following contents:

I. SABRE™ I Serial/Ethernet device driver
II. Inmarsat® LaunchPad Application
III. SABRE™ I User Manual
IV. SABRE™ I Quick Start Guide

1.4 System Requirement

I. For data connection using computer for Bridge Mode:

a) You must have a desktop or laptop computer running one of the following operating systems:

i. Microsoft® Windows® 2000.
ii. Microsoft® Windows® XP.

b) Your computer must be installed with one of the following web browsers:

i. JAVA-enabled Internet Explorer 6.0 or above.
ii. JAVA-enabled Netscape Navigator 6.0 or above.

c) Your computer must support one of the following interfaces:

i. RJ45 Ethernet.
ii. USB Interface (for Recommended Bluetooth Dongle).

II. For data connection using standard TCP/IP over Ethernet (Router Mode):

a) You must have a desktop or laptop computer with an Ethernet interface, running one of the following operating systems:

i. Microsoft® Windows® 95/98/98SE/ME/NT/2000/XP.
ii. Mac OS® 10.1 or above.
iii.Linux with TCP/IP properly configured.

b) Your computer must be installed with one of the following web browsers:

i. JAVA-enabled Internet Explorer 6.0 or above.
ii. JAVA-enabled Netscape Navigator 6.0 or above.

III. The following interfaces could be used for making a voice call:

a) A Corded Analog Handset, or
b) Bluetooth Handset supporting cordless telephone profile (CTP), or
c) Bluetooth Headset.

2 Getting To Know The SABRE™ I

2.1 The SABRE™ I

Right-Side View

FIGURE 2.1-1: Figure showing the right side view of the SABRE™ I.

Built-in Compass

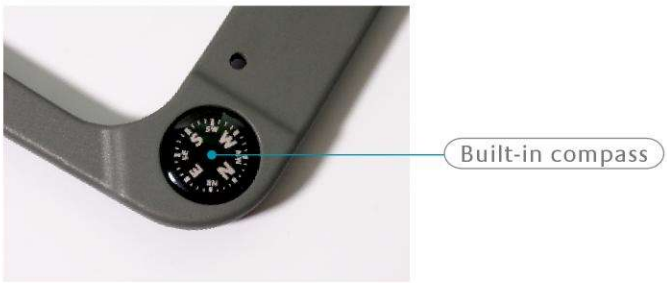


FIGURE 2.1-2: Figure showing the location of the built-in compass on the SABRE™ I.

Front View of the Front Panel built in LCD screen

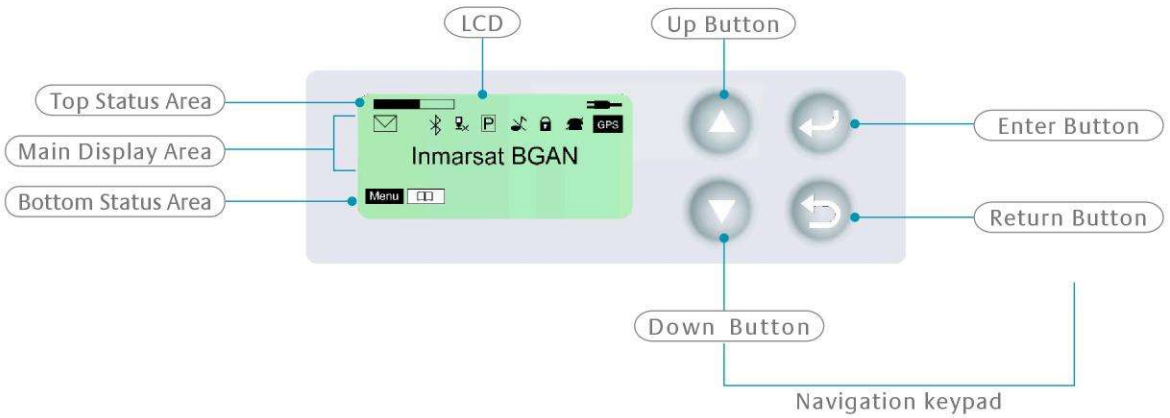
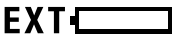
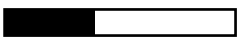


FIGURE 2.1-3: Figure showing the on board built in LCD screen.

2.2 Icons Used On The Display

Icon/Text Object	Description
[Service Provider Name]	A text showing the name of the BGAN service provider.
	A Soft Menu icon to allow for user to browse the SABRE™ I Menu Tree.
	A Soft Menu icon to allow for user to browse the SABRE™ I Phone Book.
	An animated icon to show the status of the Battery.
	An icon to show that the Primary Battery of the SABRE™ I is undergoing charging while the SABRE™ I is operational.
	An animated icon to show the Primary Battery power of the SABRE™ I.
	An animated icon to show the External Battery power level of the SABRE™ I.
	An icon to show that the Primary Battery of the SABRE™ I has completed charging while the SABRE™ I is non-operational (switched off).
	An icon to show that the Primary Battery of the SABRE™ I is undergoing charging while the SABRE™ I is non-operational (switched off).
	An animated icon to show the status of spot beam reception.
	An icon to show the status of Bluetooth I/F of SABRE™ I. This icon shows that Bluetooth is currently enabled.
	An icon to show the status of Short Message(SMS). This icon shows that new SMS has been received.
	An icon to show the status of PS services. This icon shows that PS service is attached.
	An icon to show the status of the Tones. This icon shows all tones are currently disabled.

	An icon to show Ethernet service is currently enabled.
	An icon to show that the Ethernet physical connection is disconnected with the SABRE™ I.
	An icon to show that a call is initiated or still in progress on the SABRE™ I.
	An icon to show that the SABRE™ I is receiving power from the mains.
	An icon to show that ciphering has been enabled on the SABRE™ I.
AOR	An icon indicating the location of one of the three Satellites.
IOR	An icon indicating the location of one of the three Satellites.
POR	An icon indicating the location of one of the three Satellites.
	An icon to show that the PSTN Corded Telephony feature on the SABRE™ I has been disabled.
Call	An icon to represent the Call feature in the Phone Book on the SABRE™ I.
Delete	An icon to represent the Delete feature in the Phone Book on the SABRE™ I.
GPS	An icon to show that the SABRE™ I is currently using the New GPS coordinates.
GPS	An icon to show that the SABRE™ I is currently using the Stored GPS coordinates.
	An icon to show that the Call has been placed on hold in the SABRE™ I.
	An icon to show that packet switching is active on the SABRE™ I.
	An icon to indicate that the temperature of the SABRE™ I is too high.

TABLE 2.2-1: Table showing the list of Icons that are used in the LCD display.

2.3 Input Methods

Set of Numbers and Special Letters that could be used by the on-board built-in user interface.

0 to 9	Number from 0 to 9
.	Full Stop
OK	Confirm
Bs	Back space

TABLE 2.3-1: Table showing the available characters that could be used by the on board built in user interface.

Use the “Up” and “Down” Arrow buttons on the keypad to scroll up and down for the particular number or special letter.

When the particular number or special letter has been found, the user presses the ENTER button to confirm. When “Bs” is selected, the cursor will backspace to the previous location.

3 Setting Up The SABRE™ I

3.1 Inserting The SIM Card

Insert the SIM card (gold-contacts facing the left as shown in Figure 3.1-1) into the SIM slot. Ensure the SIM card is inserted in the position as shown.

(To remove SIM card, press on the SIM card and remove from the slot.)

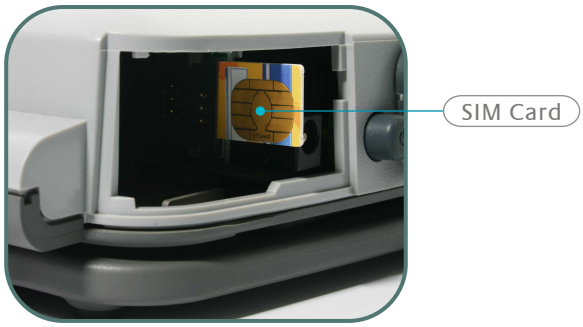


FIGURE 3.1-1: Figure showing the location of the SIM Card in SABRE™ I.

3.2 Installing The Battery

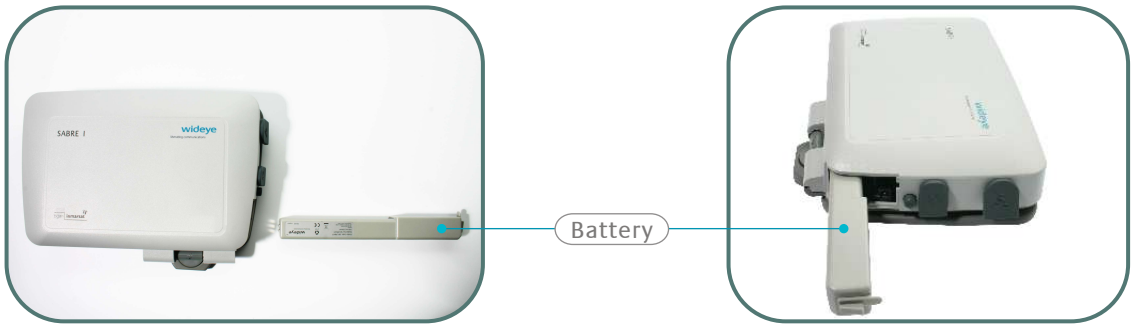


FIGURE 3.2-1: Figure showing the installation position of the Primary Battery.

3.3 Charging The Battery

Insert the Power Adapter connector fully into the Power socket.

Do not remove the battery from the SABRE™ I during charging.

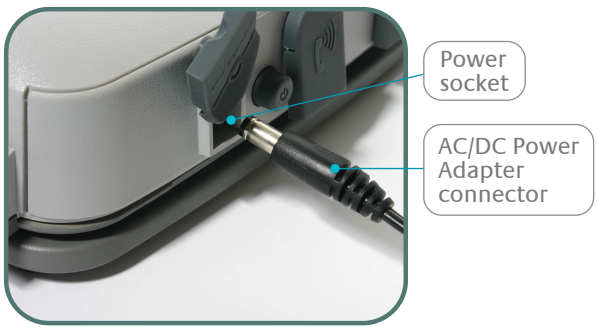


FIGURE 3.3-1: Figure showing the position of the Charger socket on SABRE™ I.

Note:
It takes approximately 3 hours to fully charge the battery.

The charging time will be longer when SABRE™ I is switched ON during the time when the battery is undergoing charging.

An icon to show that the Primary Battery of SABRE™ I has completed charging while SABRE™ I is non-operational (switched off).

An icon to show that the Primary Battery of SABRE™ I is undergoing charging while SABRE™ I is non-operational (switched off).

3.4 Powering Up and Registering to Network

3.4.1 Powering Up

I. Press and hold the On/Off switch for 3 seconds

II. The LCD display will show the “wideye” Logo.

FIGURE 3.4.1-1: LCD display showing the “wideye” logo

3.4.2 Terminal and SIM PINs (4 to 8 digits)

I. Enter the Terminal PIN number.
(Default Terminal PIN: 0000)

(Note: If the PIN is entered incorrectly or if user forgets the Terminal’s PIN number, send the unit back to the distributor.)

II. Enter the SIM PIN number

(Note: If the SIM PIN is entered incorrectly after 3 attempts, the PIN will be locked. Use the PUK (Personal Unblocking Key) code to enter new SIM PIN. If the PUK code is entered incorrectly after 10 attempts, the SIM will be disabled. Contact the Service Provider.)

Note: A SIM Card is not required to make an emergency call. SIM PIN number will not be required in the event of an emergency call.

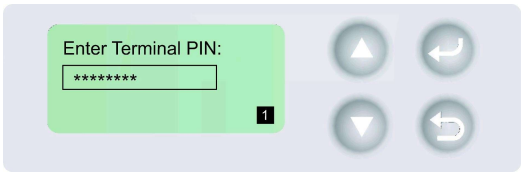


FIGURE 3.4.2-1: LCD display showing SABRE™ I request for Terminal PIN.

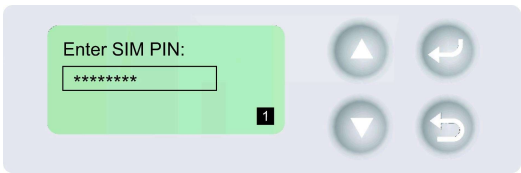


FIGURE 3.4.2-2: LCD display showing SABRE™ I request for SIM PIN.

3.4.3 GPS Fix

I. For first time use, SABRE™ I needs to acquire the GPS coordinates, go to an outdoor location and face the SABRE™ I up to the sky. The terminal shall perform the GPS acquisition automatically.

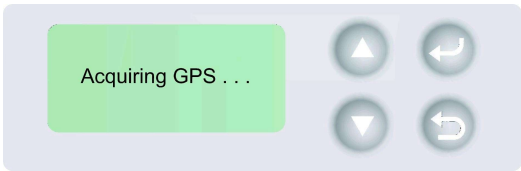


FIGURE 3.4.3-1: LCD display indicating that SABRE™ I is acquiring a New GPS Fix.

II. When acquisition is done, the LCD display will show **New GPS fix** for 2 seconds.

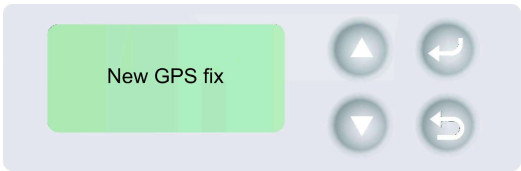


FIGURE 3.4.3-2: LCD display indicating that SABRE™ I has obtained a New GPS Fix.

III. LCD display will indicate the new estimated azimuth direction and elevation angle that the antenna should point. A GPS indicator will be displayed on the Top Right corner of the LCD display to indicate that a New GPS coordinate is in use.

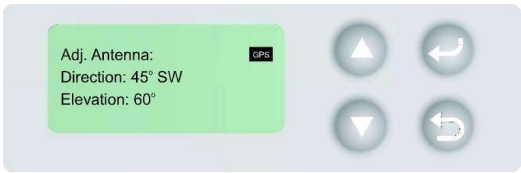


FIGURE 3.4.3-3: LCD display indicating the azimuth direction and elevation angle of the GPS coordinates.

IV. For subsequent use, the SABRE™ I will not acquire a new GPS, it will prompt the user if the previously stored GPS coordinates should be used.

To use the stored GPS coordinates, use the Up/Down buttons to select Yes and press ENTER. A GPS indicator will indicate the use of the stored GPS coordinates.

To re-acquire a new GPS, select No and press ENTER. SABRE™ I will repeat Step I to III.

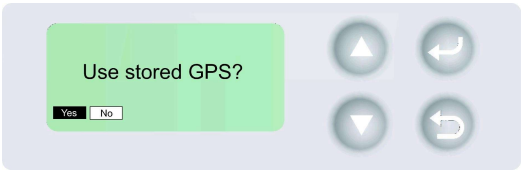


FIGURE 3.4.3-4: LCD display indicating the system's query to user if user would like to use the stored GPS coordinates.

V. Press the ENTER button and the LCD will show the signal strength bar.

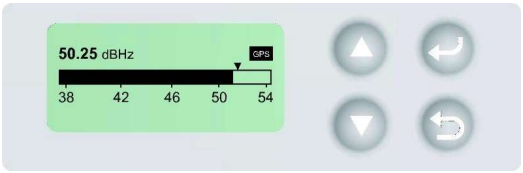


FIGURE 3.4.3-5: LCD display indicating the Signal Strength Bar

3.4.4 Antenna Pointing

I. SABRE™ I is now in Antenna Pointing state.

II. To obtain the maximum possible signal strength, adjust the antenna by turning and tilting it. For an acceptable service to commence, a signal strength of minimum 45 dBHz is required. Press ENTER when the maximum possible signal strength is obtained.

FIGURE 3.4.4-1: SABRE™ I exhibiting two degrees of freedom to enable adjustment for optimum signal strength.

III. SABRE™ I will start the registration with the network.

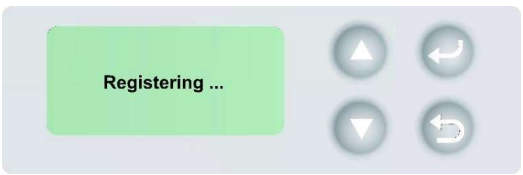


FIGURE 3.4.4-2: LCD display indicating that the SABRE™ I is in the state of Network Registration.

IV. When registration is successful, the service provider's name will be displayed.

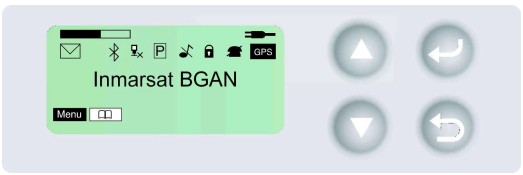


FIGURE 3.4.4-3: LCD display indicating the "Ready State" of SABRE™ I. In this state, the terminal is ready for On Air deployment.

3.4.5 Emergency Call

FIGURE 3.4.5-1: Figure showing the location of the "Menu" icon on the LCD display.

Figure 3.4.4-3 shows the "Ready State" of the LCD display. Use the navigator buttons to access the "Menu" icon. The location of the "Menu" icon is shown in Figure 3.4.5-1. The Emergency call feature on SABRE™ I is shown on Figure 3.4.5-2.

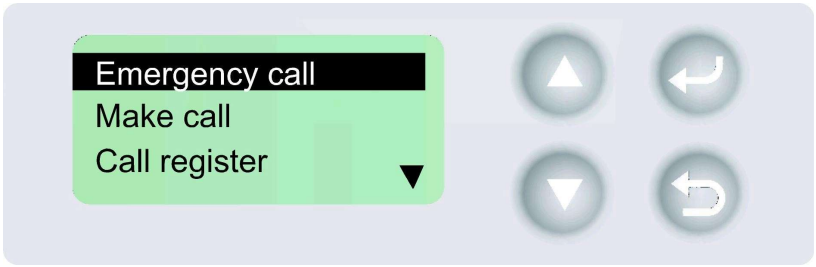


FIGURE 3.4.5-2: Figure showing the Emergency Call feature on the LCD display.

3.5 Connection Diagram

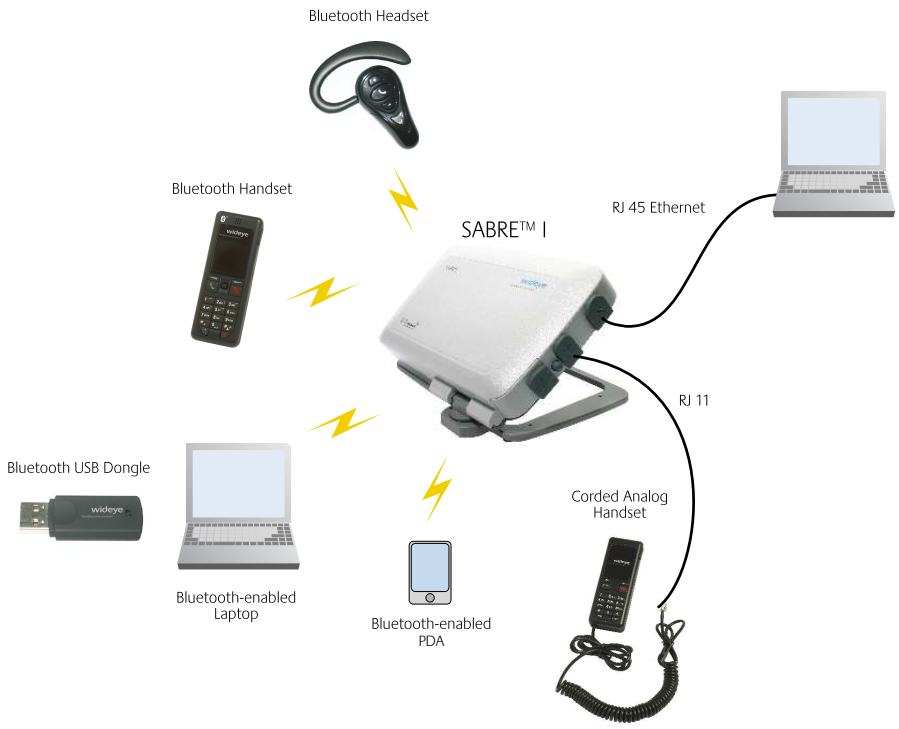


FIGURE 3.5-1: Figure showing the various applications of the SABRE™ I.

3.6 Installing Drivers and Applications on PC

SABRE™ I Product CD includes an application software called 'BGAN LaunchPad', its associated device drivers and other software utilities. You can use 'BGAN LaunchPad' to open and manage data connections, manage and monitor SABRE™ I (the Terminal) operations and monitor the status of the connections between you're the Terminal and your computer.

Device drivers are required only if the Terminal is to be connected to the PC/Laptop via the Ethernet interface and to operate the Terminal in "Bridge Mode".

Follow the instructions below to install the BGAN LaunchPad and/or associated device drivers on the PC/Laptop based on your preferred mode of operation (Bridge/Router) and your PC/Laptop configurations.

I. Insert the SABRE™ I Product CD in your PC/Laptop running on Windows 2000/XP. It will automatically bring up the following screen with SABRE™ I **"Main Setup Menu"**.

II. The following Software and Utilities are available on the CD for installation:

a) Install Software (Includes BGAN LaunchPad and device drivers for Ethernet Interface) (refer to Section 3.6.1)
b) Software Utilities (includes, Bluetooth Modem Installer, Firmware Upgrade Utility and Ethernet Interface Configuration Utility) (refer to Section 3.6.2)

3.6.1 Install Software

3.6.1.1 Installation of the SABRE I BGAN LaunchPad and/or Ethernet Serial Device Driver

From the SABRE™ I **"Main Setup Menu"**, Select **Install Software** option as shown below and follow instructions accordingly.

There are three installation options available for users to choose from. It is recommended to use "**Express Installation**" option unless your PC/Laptop is built-in with "**Dual Core CPU**". For PC/Laptops with "**Dual Core CPU**", please select "**Router Mode Installation**" option. If you are an advanced user, you may select "**Custom Installation**" option.

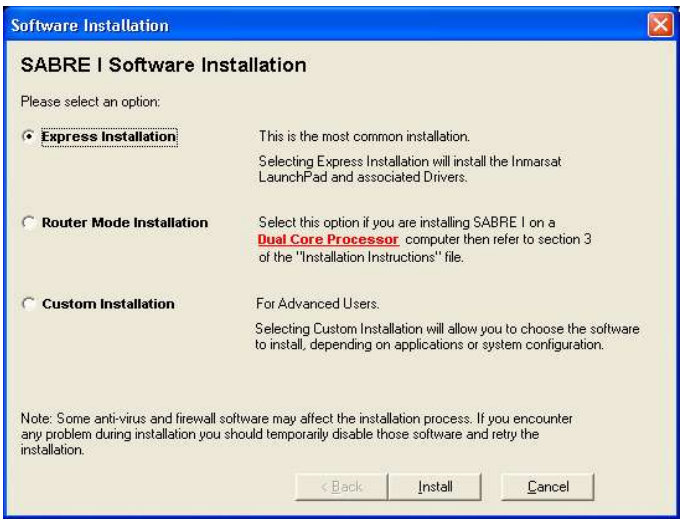
3.6.1.1.1 Express Installation

Express Installation will first configure the Terminal and then install **BGAN LaunchPad** and its associated device drivers to operate the Terminal using Ethernet Interface in **Bridge Mode** (as default).

I. Before starting the Terminal Configuration process, please do the following:

a) Insert the SIM into the Terminal.
b) Place the Terminal at a location where it is exposed to the sky to acquire GPS information for the first time upon power ON.
c) Connect the Terminal to the PC/Laptop using an Ethernet cable (Cat-5 cable) provided.
d) Switch ON the Terminal.

II. To start the express installation process, select **"Express Installation"** option and click on **"Install"** as shown below.



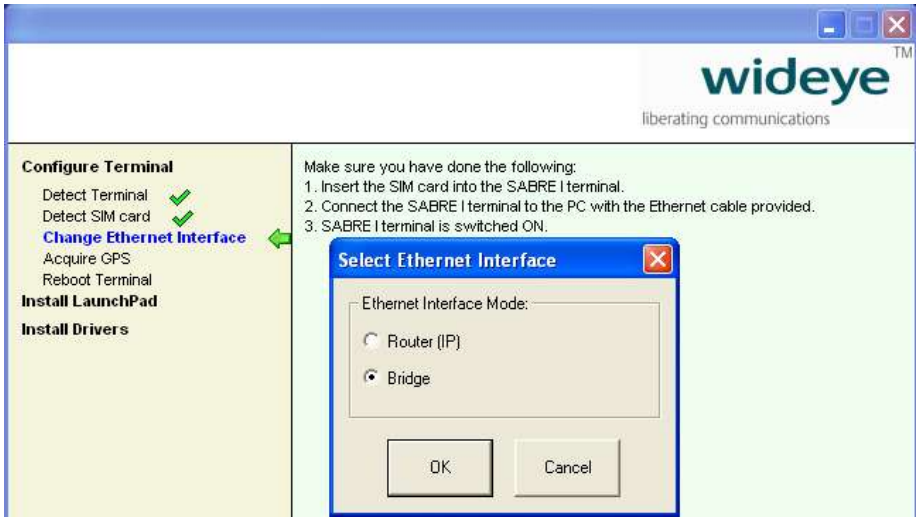
3.6.1.1.1.1 Configure Terminal

The installer will configure the Terminal automatically. However, if it encounters any problem during the configuration, it will prompt the user with appropriate message to take remedial action.

I. The installer will first detect the Terminal. If the Terminal is switched off, it will prompt a message, asking user to turn it ON.

II. It will then detect if the Terminal is inserted with SIM Card. If the Terminal has no SIM card inserted, please switch off the Terminal, insert the SIM card as shown in the Quick Start Guide and then restart the Terminal before proceeding to the next step.

III. The installer will then prompt the user to select the preferred mode of Ethernet Interface as shown below. The default mode is **"Bridge"**. If your PC/Laptop is built-in with **Dual Core CPU**, then you **MUST** select **"Router (IP)"** mode. Click on **"OK"** after mode selection.



IV. The installer will then wait for the Terminal to acquire GPS fix. If the Terminal successfully acquires the GPS fix, please go to step (6).

V. If the GPS fix is not successful (as shown below), make sure that the Terminal is positioned at high elevation angle, exposed to clear sky and then leave it ON for another 2 to 3 minutes before clicking on the **"Yes"** button to retry GPS acquisition. If it still fails to acquire GPS fix after repeated attempts, please switch OFF the Terminal, switch it ON again and then retry.

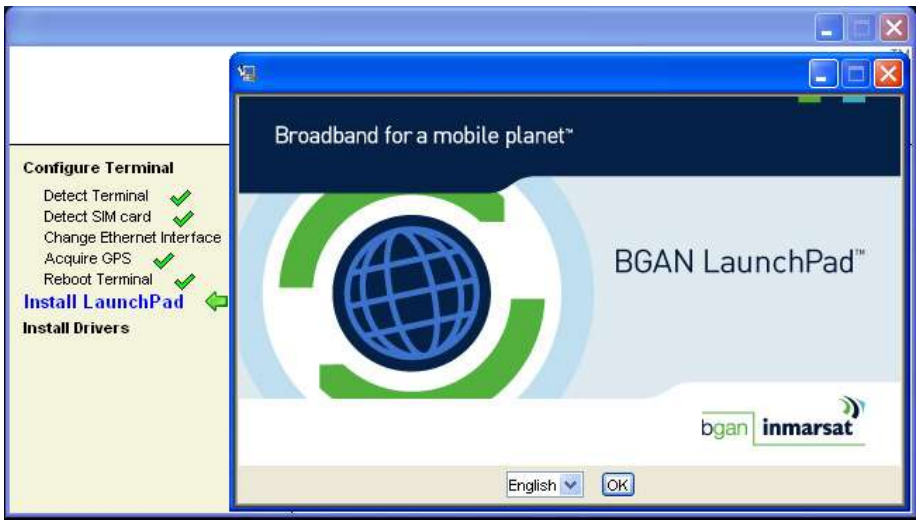
VI. After successful GPS fix, reboot the Terminal (Switch OFF and then Switch it ON) when prompted to do so. This is to save the newly acquired GPS fix.

VII. The installer will then take you to install LaunchPad. Please unplug the Ethernet cable from the Terminal before proceeding to install the **BGAN LaunchPad**.

3.6.1.1.1.2 Installing BGAN LaunchPad

You can use BGAN LaunchPad to open and manage data connections, manage and monitor terminal operations and monitor the status of the connections between your terminal and your computer.

I. When the installer prompts to proceed with BGAN LaunchPad Installation, click on "OK"



II. Please follow the step-by-step screen instructions to install the LaunchPad. If there is an already existing LaunchPad Installation detected, please select to "uninstall" the older version of LaunchPad and then install the newer version that comes with the installer.

III. During LaunchPad installation you will be prompted to select "**Personal**" or "**Corporate**". The default option is "Personal". Please leave it as default (Personal).

a) Personal Edition or Corporate Edition:

BGAN LaunchPad Personal Edition is for personal use, and has the following properties:

i. All BGAN LaunchPad features are available to you.
ii. You can personalize all of BGAN LaunchPad's functions and features without restriction.

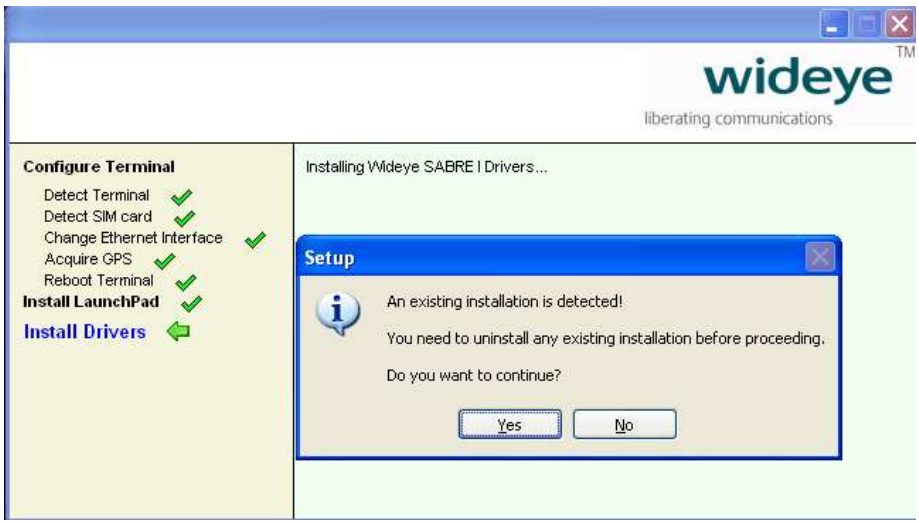
BGAN LaunchPad Corporate Edition is for corporate users and has the following properties:

i. A user profile is required with the corporate edition. A user profile is created with a separate application called BGAN LaunchPad Corporate Profile Maker.
ii. The user profile defines user restrictions so some features may not be available to you, depending on the configuration that has been set up by your Corporate IT Manager or service provider.
iii. You are asked to enter a username and password when logging in to BGAN LaunchPad.

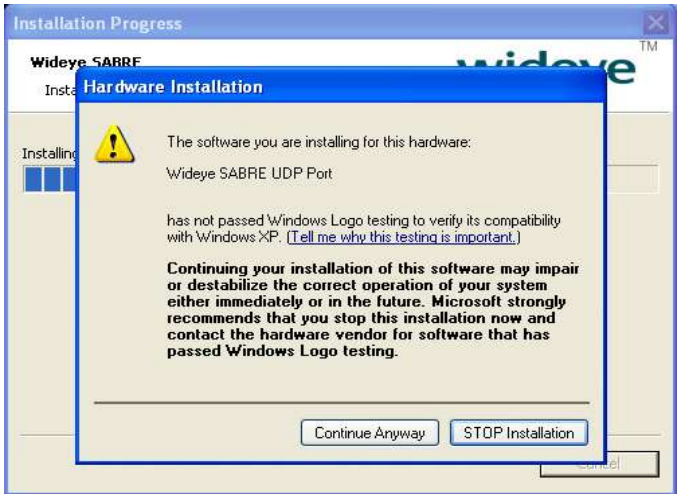
3.6.1.1.1.3 Installing Device Drivers

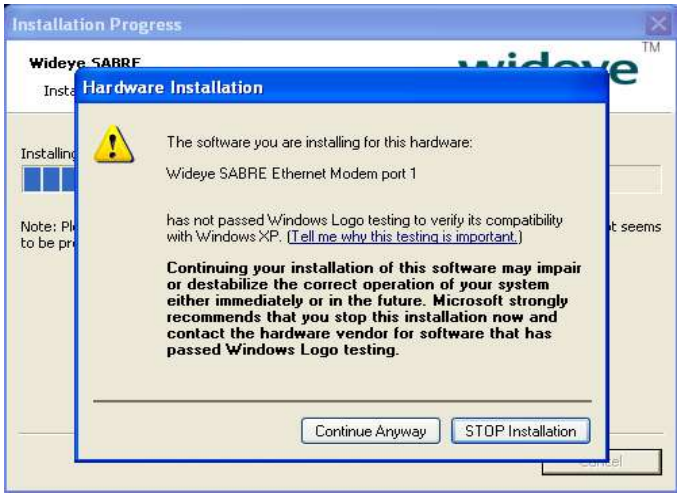
I. After successful completion of LaunchPad installation, the installer will take you to the next step to install the SABRE™ I Ethernet Serial Device Driver. This driver is required for the Terminal to operate in **"Bridge"** mode. If your PC/Laptop is built-in with **Dual Core CPU**, then you **MUST NOT** install the Device Driver and click on the **"Cancel"** button to cancel the Device Driver installation. Otherwise, please proceed to the next step.

II. If an existing installation of the Device Driver is detected, the installer will prompt the user to uninstall the existing Device Driver before installing the new driver. Click on "Yes" to proceed.



X. During the installation process, you may be prompted warning messages as shown below. Please ignore the messages and click on the **"Continue Anyway"** button to continue.





IV. After successful installation of the Device Driver, the installer will prompt you to restart your computer. Select “Yes, restart the computer now” option to restart the computer.

V. After PC is restarted, connect the Terminal and PC with Ethernet Cable.

VI. Start the LaunchPad. Now you are ready to use the Terminal!

3.7 SABRE™ I Software Utilities

3.7.1 Bluetooth (Data Dongle) Setup

Recommended Bluetooth Dongle: - 0BT-01UD1 from Planex Communications (Range: 100m)
- SMC-BT1 from SMC Networks

3.7.1.1 Installation of Bluetooth Data Dongle Driver

Following guide is for the above Bluetooth Dongle

I. Place the Bluetooth Data Dongle Driver CD (the driver could be found in the CD that is packaged together with the Bluetooth Data Dongle) into the CD ROM Drive of the PC.

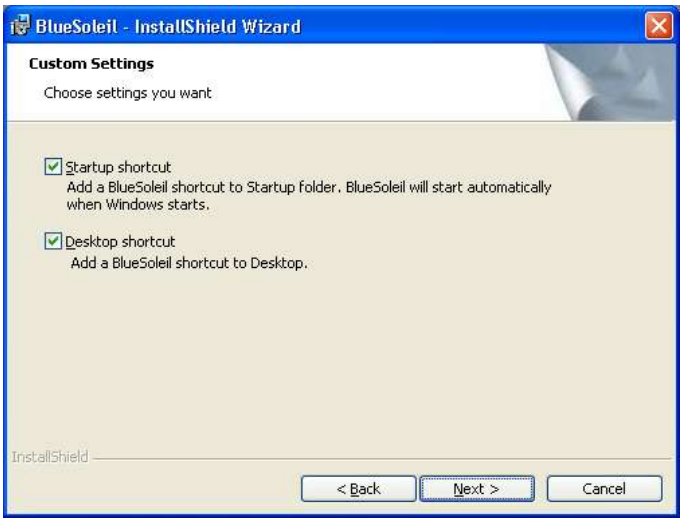
II. Right Click on "Start" and select "Explore" to access the contents within the Bluetooth Data Dongle CD. Double-click on the "**Setup.exe**" file.

III. Select the language and click **OK**.

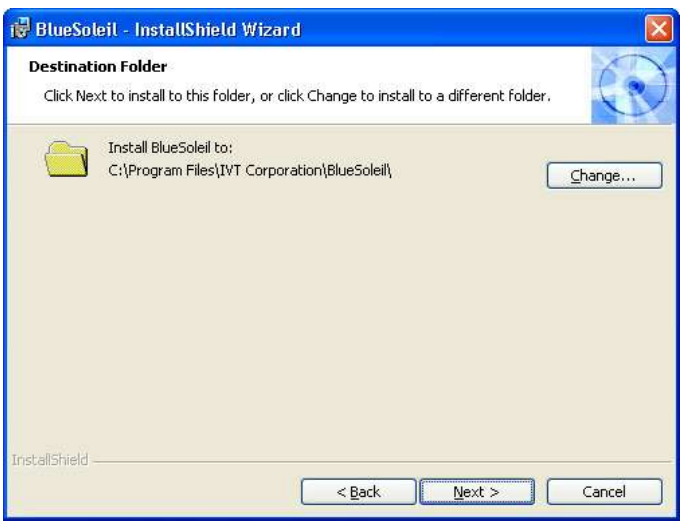
IV. Click **Next**.

V. Click **I accept the terms in the license agreement** and click **Next.**

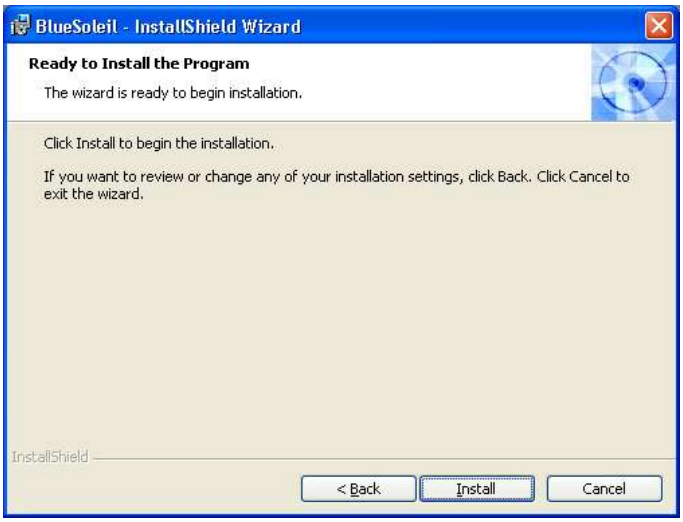
VI. After selecting the desired settings, click on the **Next.**



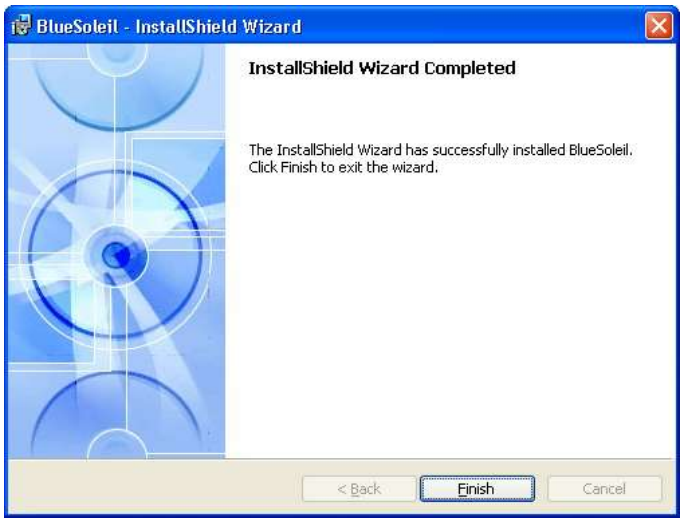
VII. Click **Next.**



VIII. Click **Install**

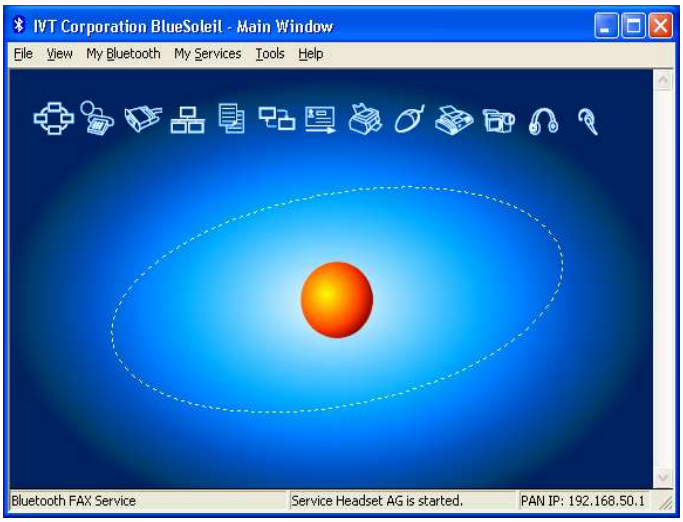


IX. Click **Finish** to complete the application installation.



X. Select **Yes** to Restart the PC. The drivers for the USB Bluetooth dongle and connection application are installed onto the PC.

XI. After restart, the IVT application will open (as per below figure). Insert the Bluetooth dongle in a USB port. The PC will detect the dongle automatically. (Please refer to the Bluetooth Dongle Accessory user guide for more information.)



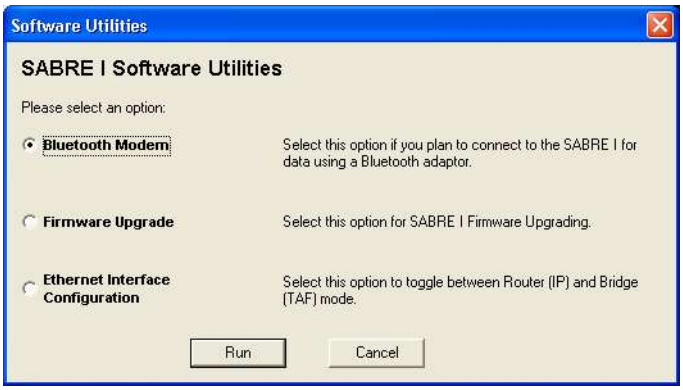
3.7.2 Installation of the SABRE™ I Bluetooth Modem

This procedure is to install modem drivers that will bind to the Bluetooth Serial Ports in order to use the Bluetooth Interface for data connection.

Pre-requisite:
Prior to installing this modem driver, please make sure you have your modem driver utility software **"BlueSoleil"** (that comes along with the recommended Bluetooth Data Dongle/Adapter) is installed on to your PC/Laptop. If you have not done so, please refer to section 3.7.1 before continuing. If you have "BlueSoleil" installed already, please follow the steps as stated below.

Insert SABRE™ I product CD and from the SABRE™ I **Main Setup Menu**, select **Software Utilities** option and follow instructions accordingly.

Select **Bluetooth Modem** and click on **Run** to connect to the modem using a Bluetooth adaptor.



Select **AUTO INSTALL** (default) to install one modem driver each to every Bluetooth Serial COM ports. This is the recommended option. This will uninstall all previously installed Bluetooth Modem Drivers (if any) before installing new Bluetooth Modem Drivers.

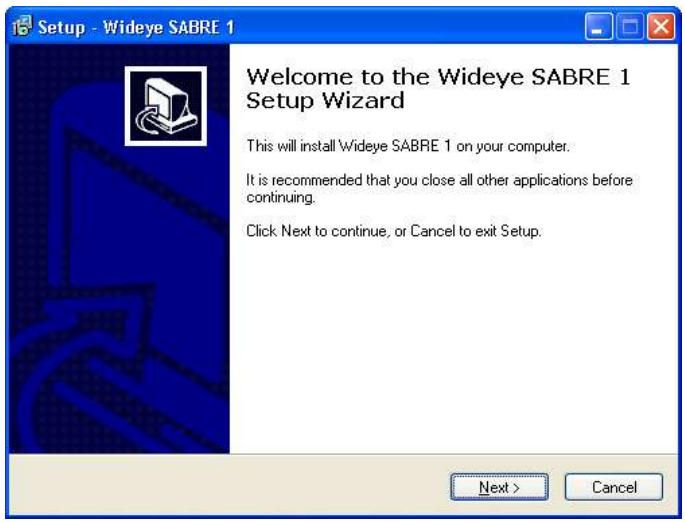
But you may select **MANUAL INSTALL** to install the modem driver by selecting one Bluetooth Serial COM port at a time, selected manually. It is recommended to install at least two Bluetooth Modem Drivers in order to use LaunchPad.

UNINSTALL ALL option is available for you to uninstall all previously installed Bluetooth Modem Drivers (if any).

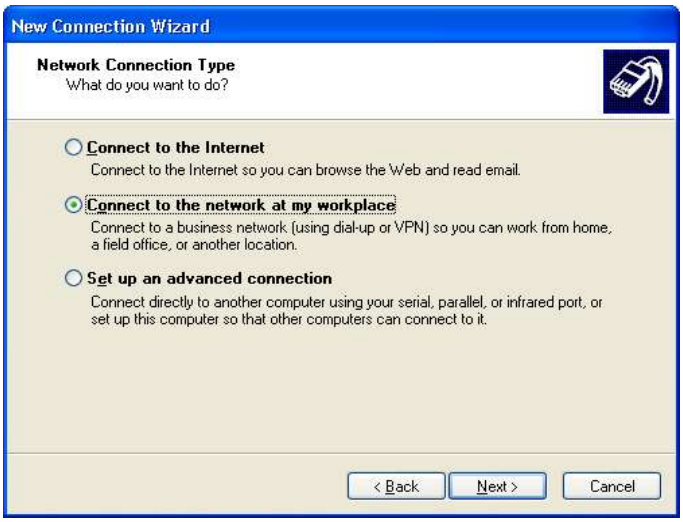
3.8 DUN Client Installation (Optional if using Launchpad) - Win XP

I. From Win XP Desktop, click **Start**, select **All Programs** > **Accessories** > **Communications** > **New Connection Wizard.**

II. From **New Connection Wizard**, click **Next.**



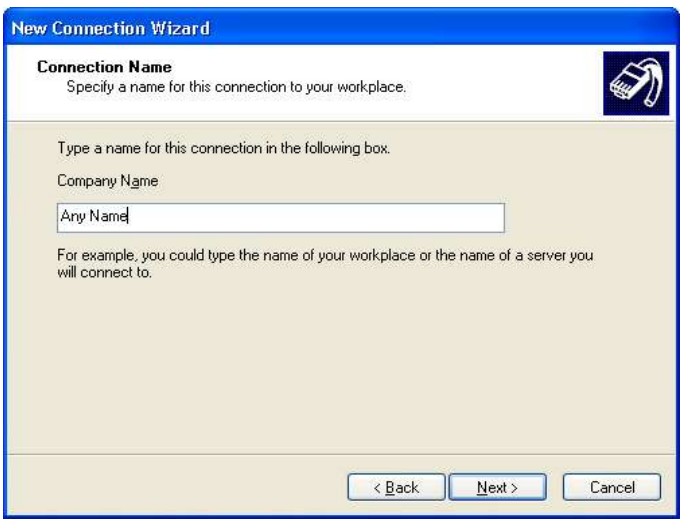
III. Select **Connect to the network of my workplace** and click **Next.**



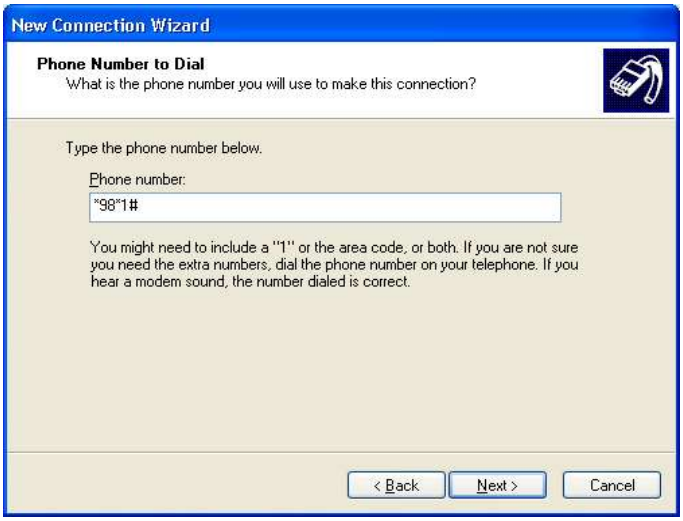
IV. Select **Dial-up connection** and click **Next.**

V. Check on the modem that was created earlier in section 3.6.1.2 (Windows XP installation instructions still needs to be updated) and click **Next.**

VI. Enter a Company Name (for example Any Name) and click **Next.**



VII. Enter ***98*1#** and click **Next.**



VIII. Select **Anyone's use** and click **Next.**

IX. Check **Add a shortcut to this connection** to my desktop and click **Finish.**

XI. The DUN Client shortcut icon will be created on the Desktop.

3.9 DUN Client Installation (Optional if using Launchpad) - Win 2000

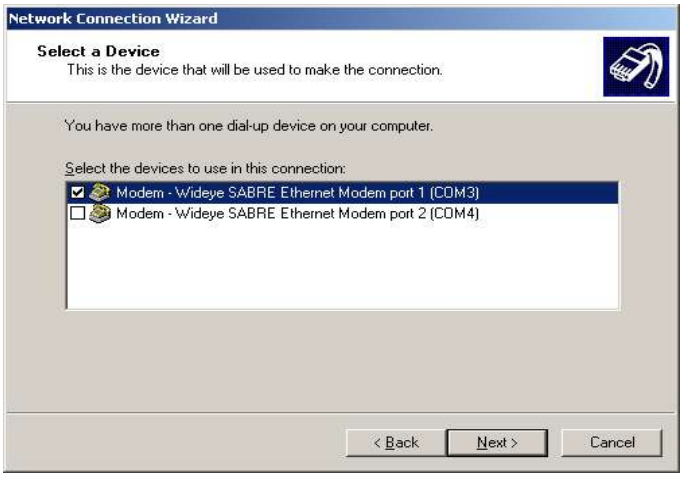
I. From Win 2000 Desktop, click **Start**, select **Programs** > **Accessories** > **Communications** > **Network and Dial-up Connections.**

II. From the **Network and Dial-up Connections Folder**, select **"Make New Connection".**

III. Click **"Next".**

IV. Select **"Dial-up to private network"** and click **Next.**

V. Select either **“wideye SABRE Ethernet Modem port 1”** or **“wideye SABRE Ethernet Modem port 2”** and click **Next.**



VI. Type **“*98*1#”** under the **“Phone number”** field and Click **Next.**

VII. Type in **“SABRE 1 Network Connection (or any name)”** in the **“Type the name you want to use for this connection”** field, **Check** the **“Add a shortcut to my desktop checkbox”** and then click **“Finish”.**

VIII. The Any Name **shortcut** icon will be created on the Desktop. No user name or password are required for this connection.

4 Using The SABRE™ I

4.1 Call Functions

4.1.1 Making a phone call using the Corded Analog Handset

I. Connect the **Corded Analog Handset** to SABRE™ I via the Corded Analog Handset (RJ11 phone) port.

II. Making phone calls directly –

FIGURE 4.1.1-1: Figure showing the connection of the Corded Analog Handset to the RJ-11 Interface of SABRE™ I.

a) With SABRE™ I in the ready state, using the Corded Analog Handset: Press the to listen to the dial tone before dialing and dial the calling party number in the following format; <00> <Country Code> <Telephone Number> <#>.

FIGURE 4.1.1-2: SABRE™ I in the ready state.

III. Making phone calls via Phonebook –

a) Use the Up/Down buttons to select Icon.

b) Scroll to the calling party's name and Press ENTER.

c) Press the button on the Corded Analog Handset to listen to the dial tone.

d) Use the Up/Down buttons to select Call .

e) Press ENTER to start the dialing sequence.

FIGURE 4.1.1-3: LCD Display of the SABRE™ I showing the contents of the phone book.

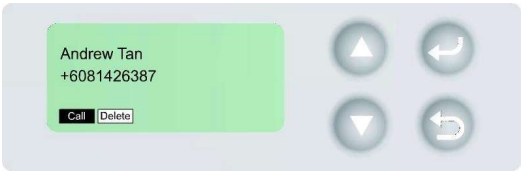


FIGURE 4.1.1-4: LCD Display of the SABRE™ I showing the user's choice of a phone number from the phone book.

4.1.2 Ending a Call

I. From the Calling screen, select **End Call.**

4.1.3 Answering an incoming call

I. The ringer will sound when there is an incoming call.

II. Press the button on the Corded Analog Handset or Bluetooth headset to accept the call.

4.1.4 Making an Emergency Call (See also Chapter 3. Section 3.4.5)

I. From the Ready State screen, select **Menu** > **Emergency call.**

II. From the Emergency Call List, select the required Emergency Number > **Select Number> Call**

III. Emergency call will be established.

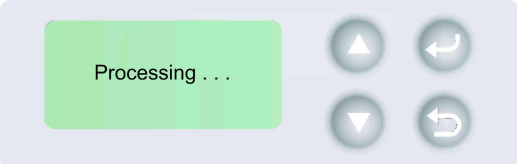


FIGURE 4.1.4-1: LCD on SABRE™ I showing that it is currently processing the list of emergency call numbers after user selects the Emergency Call icon from the Menu.

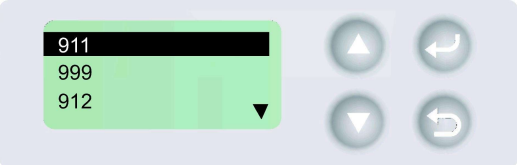


FIGURE 4.1.4-2: LCD showing the list of emergency numbers that are available for selection after user selects the Emergency Call icon from the Menu.

4.2 Call Register

4.2.1 viewing Missed, Received or Dialed Calls

I. From the Ready State screen, select **Menu > Call register > Missed calls, Received calls, Dialed calls or Delete all.**

II. From the respective call lists, select the required call.

III. To view call details, select **View Type Call.**

IV. To make a phone call to the call number that has been selected, select **Make Call.**

4.2.2 Deleting Call Lists

I. From the Ready State screen, select **Menu > Call register > Delete Recent Call Lists.**

II. To delete all, select **All > OK** (to confirm).

III. To delete individual call list, select **Missed calls, Received calls** or **Dialled calls > OK** (to confirm).

IV. After deleting, the LCD display will return to **Delete Recent Call** Lists.

4.3 Bluetooth Settings on SABRE™ I

4.3.1 Enable Bluetooth

I. From the LCD, use the Up/Down buttons to select **Menu > Settings > Interfaces > Bluetooth > Enable.**

II. The LCD will display **“Bluetooth enabled!”** for 2 seconds and revert back to > **Bluetooth.**

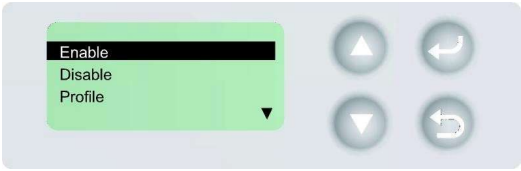


FIGURE 4.3.1-1: LCD Display of SABRE™ I showing the Bluetooth Interface “Enable” Option screen.

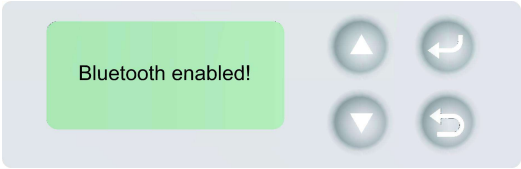


FIGURE 4.3.1-2: LCD Display of SABRE™ I showing the “Bluetooth enabled!” message.

4.3.2 Pairing of Bluetooth Devices

I. From the LCD, use the Up/Down buttons to select **Pairing of Device.**

II. The LCD will display **“Searching...”.**

III. After searching, the LCD will display a list of devices for pairing. Select a Bluetooth device from the list for pairing. (Devices of the same brand and type may appear as the same name on the list.)

IV. Enter the Bluetooth device **PIN.**
(Wideye Bluetooth Headset default PIN is 0000.)

V. The LCD will display **“Pairing...”.**

VI. When successfully paired, the LCD will display **“Paired successfully !”** for 2 seconds and revert back to > **Bluetooth.**

VII. However if Pairing fails, the LCD display will show **Pairing failed!**

a) **The PIN could be wrong, re-check on the PIN and enter the correct PIN to repeat the pairing operation.**

b) **If the PIN is correct, it is possible that SABRE™ I is unable to detect the selected device during the pairing operation, repeat the device selection and continue with the pairing procedure.**

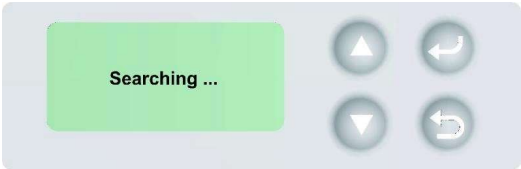


FIGURE 4.3.2-1: LCD Display of SABRE™ I showing the “Searching” message after user selects the “Pairing of Device” option.

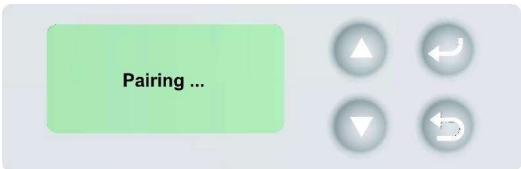


FIGURE 4.3.2-2: LCD Display of SABRE™ I showing the “Pairing” message.

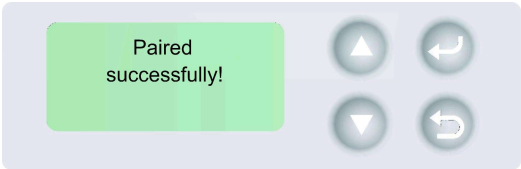


FIGURE 4.3.2-3: LCD Display of SABRE™ I showing the “Paired successfully” message.

4.3.3 Connecting to a paired Bluetooth Device

I. From the LCD, use the Up/Down buttons to select Paired list.

II. From the list, use the Up/Down buttons to select the paired device to be connected and press ENTER.

III. Use Up/Down buttons to select Connect and press ENTER.

IV. The LCD would display the Bluetooth profiles that are supported on the device.

V. Use Up/Down buttons to select appropriate profile, for example for Bluetooth Headset select HSP and Bluetooth Dongle select SPP0 or SPP1.

VI. When connected, the LCD will display "Connected successfully!" for 2 seconds and revert back to > Bluetooth.

VII. Other related functions:

a. Select **Disconnect** to disconnect the device with SABRE™ I.

b. Select **Authorised** to authorise the selected device. When selected, SABRE™ I will automatically connect with the remote device when the remote device initializes the connection.

c. Select **Un-authorise** to un-authorise the selected device. When selected, SABRE™ I will prompt the user to accept or reject the connection initialized by the remote device.

d. Select **Delete** to delete the selected device from the paired list.

e. To view the SABRE™ I Bluetooth name, select **My Modem > Name**. The LCD display will show the name.

f. To enable or disable the SABRE™ I Bluetooth Default PIN, select **My Modem > Default PIN > Enable or Disable.**

g. Select **Enable**> Change **PIN**. Enter **New PIN Number** > re-enter **New PIN**. The LCD display will show **"PIN Changed!"**.

FIGURE 4.3.3-1: LCD Display of SABRE™ I showing the selection of the "SPP0" profile from the list of available profiles that are supported by the Bluetooth Dongle.

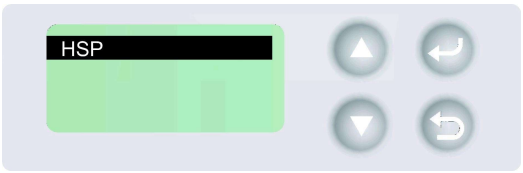


FIGURE 4.3.3-2: LCD Display of SABRE™ I showing only the "HSP" profile for Bluetooth Headset connection with SABRE™ I.

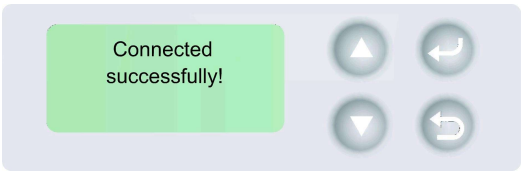


FIGURE 4.3.3-3: SABRE™ I LCD Display showing that a successful connection has been established between SABRE™ I and the remote device.

4.4 Using Wireless Devices with SABRE™ I

4.4.1 Using the Bluetooth Headset

I. Perform the pairing and connection procedures before proceeding with the following. (Enabling Bluetooth on SABRE™ I, Bluetooth device pairing and connection procedures are found in Section **4.3 Bluetooth Settings on SABRE™ I.**)

II. Making phone calls via Phonebook –

FIGURE 4.4.1-1: Figure showing the wireless connectivity of the Bluetooth Headset with SABRE™ I.

a. Use the Up/Down buttons to select [📖] and press ENTER.

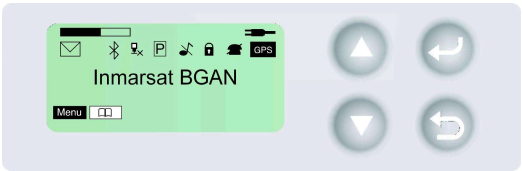


FIGURE 4.4.1-2: SABRE™ I in the ready state.

b. Scroll to the calling party's name and press ENTER.

FIGURE 4.4.1-3: LCD Display of SABRE™ I showing the contents of the Phonebook.

FIGURE 4.4.1-4: LCD Display of SABRE™ I showing the user's choice of a phone number from the phone book.

c. Press the Connect button on the Bluetooth Headset to listen to the dial tone.

d. Use the Up/Down buttons to select **Call** .

FIGURE 4.4.1-5: Photograph of the bluetooth headset showing the location of the Connect Button.

e. Press ENTER to start the dialing sequence.

FIGURE 4.4.1-6: Photograph of the LCD display showing user selection of the "Call" button before the selection of the "Enter" button to start the dialing sequence.

4.4.2 Using the Bluetooth Headset

I. Perform the pairing and connection procedures before proceeding with this section. (Enabling Bluetooth on SABRE™ I, Bluetooth device pairing and connection procedures are found in Section **4.3 Bluetooth Settings on SABRE™ I.**)

II. Making phone calls directly –

a. Bluetooth Handset: Enter the calling party number in the following format: <00><Country Code><Telephone Number><#> (Calling numbers will be displayed in the LCD).

b. Press the button to start the dialing sequence.

III. Making phone calls via Bluetooth Handset. (Please refer to Appendix 6 of the Accessories User Guide.)

FIGURE 4.4.2-1: Figure showing the wireless connectivity of the Bluetooth Handset with SABRE™ I.

4.5 Configuring SABRE™ I for network access (via built in LCD Interface)-(Configuring for Standard Connection)

4.5.1 Ethernet settings on SABRE™ I - Bridge (TAF) Mode

4.5.1.1 Change to Bridge mode:

I. From the LCD, use the Up/Down buttons to select Menu > Settings > Interfaces > Ethernet > Connectivity > Bridge Mode Connection and Press ENTER

II. Use the Up/Down buttons to select Enable and Press ENTER.

4.5.1.2 Proceed with the following steps to activate a Data connection:

I. From the PC, open DUN Client - double-click on the DUN Client icon.
Note: There is a standard primary profile, cid = 1, as default configuration.

II. Click **Dial** to start connection. Username and Password are not required.

III. Wait until connection is successful, open the Internet Browser to begin “Surfing”.

4.5.2 Ethernet settings on SABRE™ I - Router (IP) Mode:

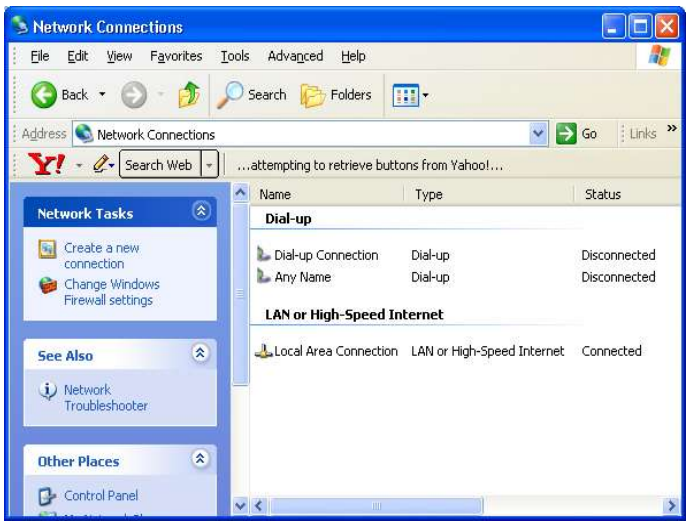
4.5.2.1 Configure mode:

I. From the LCD, use the Up/Down buttons to select **Menu** > **Settings** > **Interfaces** > **Ethernet** > **Connectivity** > **Router Mode Connection** and Press ENTER.

II. Use the Up/Down buttons to select **Enable** and press ENTER.

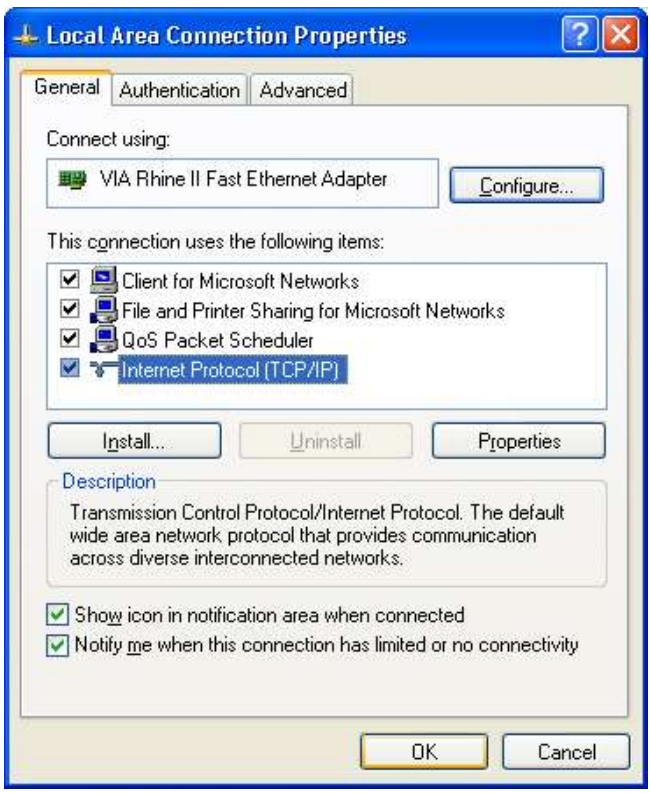
4.5.2.2 Setup your PC to get IP address dynamically

I. Open “Network and Dial-up Connections” window from Control Panel, double-click on the Local Area Connection.

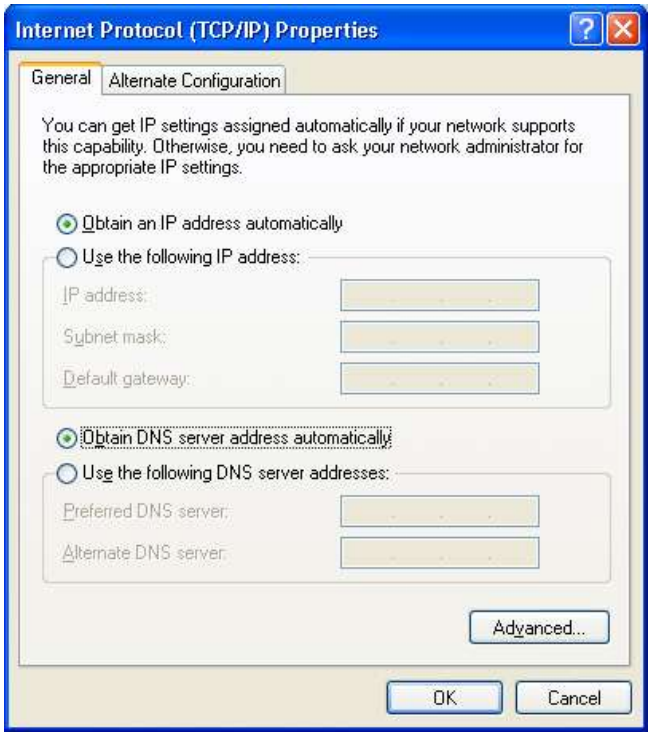


II. Select **Properties.**

III. Select and check **Internet Protocol (TCP/IP)** and click **Properties.**



IV. Select **Obtain an IP address automatically** and **Obtain DNS server address automatically** and click **OK.**



V. Close all the windows.

4.5.2.3 Proceed with the following steps to active a Data connection:

I. I.From the LCD, use the Up/Down buttons to select **Menu** > **Settings** > **Interfaces** > **Ethernet** > **Connectivity** > and Press ENTER

II. Use the Up/Down buttons to select **Options** > **Automatic** if you need an automatic Data connection after reboot and Press ENTER.

III. Select **Options** > **Manual** if you want to make the connection manually at the time you need it.

IV. Use **Connect** or **Disconnect** to activate or deactivate a data connection respectively.

V. If **Options** > **Automatic** is selected, unplugging and re-plugging the Ethernet cable will also activate the Data connection.

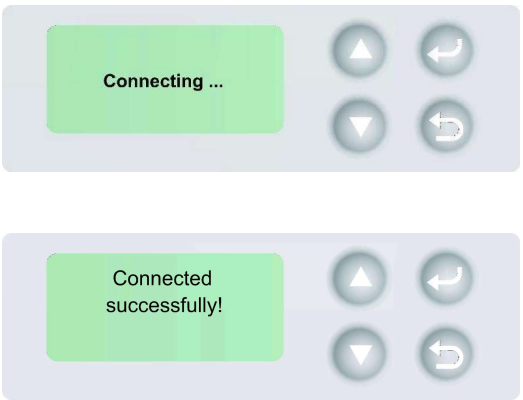


FIGURE 4.5.2.3-1: LCD Display of SABRE™ I showing that a successful IP connection has between established after network parameter configuration.

4.6 Settings

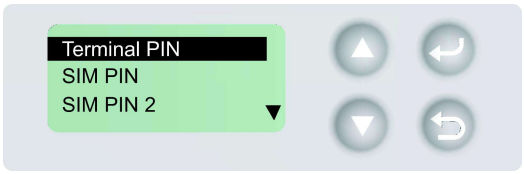
4.6.1 Security Settings

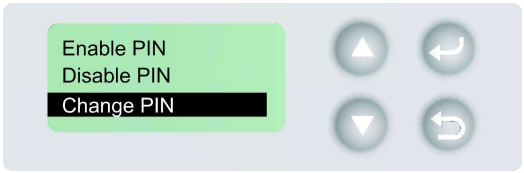
I. To enable or disable - Terminal PIN/ SIM PIN/SIM PIN 2/ SIM Personalization/ Service Provide PIN/ Corporate PIN, from Security, select Terminal PIN/ SIM PIN/ SIM PIN 2/ SIM Lock/ Service Provider/ Corporate PIN > Enable PIN or Disable PIN > enter PIN > OK.

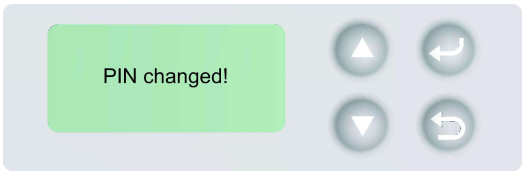
II. To change Terminal PIN/ SIM PIN/SIM PIN 2/ SIM Lock PIN/ Service Provide PIN/ Corporate PIN, from Terminal PIN/ SIM PIN/ SIM PIN 2/ SIM Lock/ Service Provider/ Corporate PIN, select Change PIN > Enter PIN (old PIN) > Enter new PIN > Re-enter new PIN.

When done, the LCD display will show PIN Changed.

(Note: To change any PIN, that PIN has to be enabled first before making the change.)







4.6.2 Network Settings

Selecting the Network profiles and Packet Switching.

I. From the Ready State screen, select **Menu** > **Settings** > **Network.**

II. To enable a Network profile, select **Data comm profile** > **Primary profile.**

III. Select **Standard** or **Streaming** with the **Up/Down buttons** and press **Enter** button.

IV. The profile details will be displayed, press ENTER to save the profile settings or press **Return** button to revert back to the menu listing.

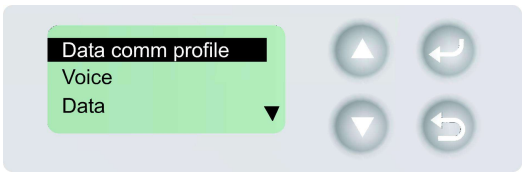
V. To configure Data, from **Network**, select **Data** > **Manual** or **Automatic.**

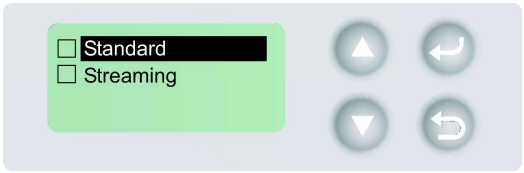
VI. For **Automatic,** the LCD will show **Automatic selected!**

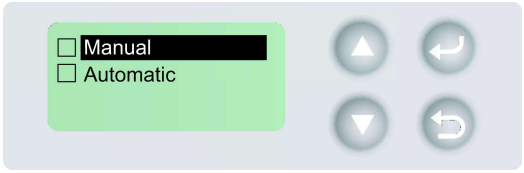
VII. For **Manual**, the LCD will show **Manual selected!** (When **Manual** is selected, Data will not be activated during next power on.)

VIII. To configure Voice, from **Network**, select **Voice** > **Manual** or **Automatic.**

IX. For **Automatic,** the LCD will show **Automatic selected!**







X. For **Manual**, the LCD will show **Manual selected!** (When Manual is selected, Voice will not be activated.)

XI. To configure Ciphering mode, from **Network**, select **Ciphering mode** > **Enable** or **Disable**.

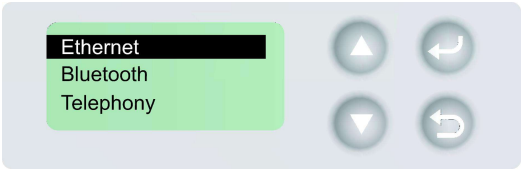
The LCD will show **Setting saved!** Press **Return** button until LCD goes back to Ready State, if Ciphering mode is enabled, the icon will be shown.

Note: Ciphering mode – This feature increases the security of the sent data. This configuration only be activated during next power on.

4.6.3 Interface Settings

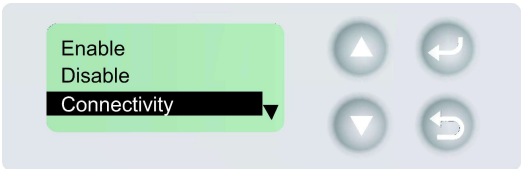
Ethernet Connectivity Settings

I. From the Ready State screen, select **Menu** > **Settings** > **Interfaces** > **Ethernet** press ENTER.



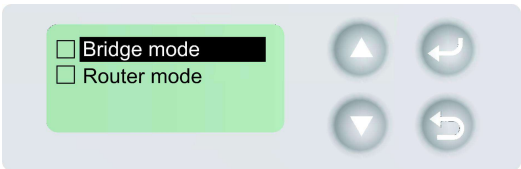
II. To enable or disable Ethernet, select **Enable** or **Disable**.

III. To select Bridge Mode or Router Mode Connection, from **Ethernet**, select **Connectivity**.



IV. For Bridge Mode connection, select **Bridge Mode connection** with the **Up/Down** button and press ENTER.

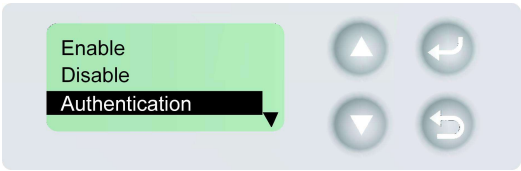
V. Select **Enable** to activate Bridge Mode connection. The LCD will show **Bridge Mode connection enabled!** Select **Disable** to deactivate Bridge Mode connection. (When **Disable** is selected, the connection will automatically switch to Router Mode connection.)



VI. For Router Mode connection, select **Router Mode connection** with the **Up/Down button** and press ENTER.

VII. Select **Enable** to activate Router Mode connection. The LCD will show **Router Mode connection enabled!** Select **Disable** to deactivate Router Mode connection. (When **Disable** is selected, the connection will automatically switch to Bridge Mode connection.)

VIII. For **Router Mode Connection** settings, select **Router Mode connection** and continue with the following:



a) Set **Authentication**, select **Authentication** > **PAP, CHAP,AUTO or NONE.**

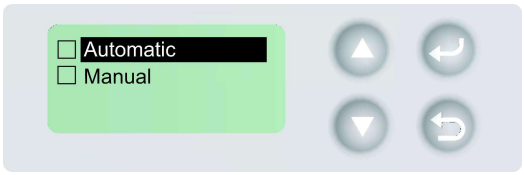
b) Set **DNS Setting**, select **DNS setting** > **Dynamic** or **Static.**

c) For **Dynamic**, the primary and secondary DNS IP addresses will be automatically assigned.

d) For **Static**, user may edit the primary and secondary DNS IP addresses.

e) To edit the Primary and Secondary DNS IP addresses, select **Static** > **Primary** or **Secondary DNS IP** addresses. Select **Edit** to make changes to the addresses. After editing, select **Save** to save the new Primary or Secondary DNS IP addresses.

f) Set option of connect, select **Options** > **Automatic** or **Manual**.



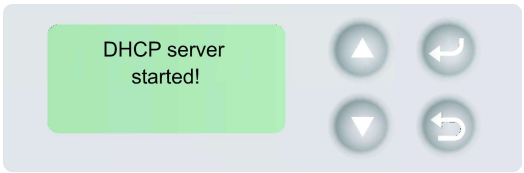
g) Select **Connect** to initiate the Ethernet connection or **Disconnect** to terminate the Ethernet connection.

IX. Ethernet DHCP Server Configuration.

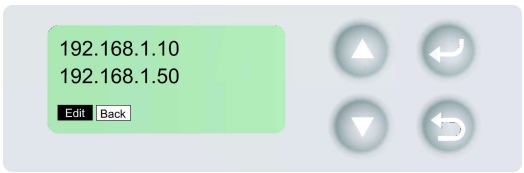
From **Interfaces Settings**, select **Ethernet** > **DHCP config.** Continue with the following:

a) Select **Start** to start the DHCP server.

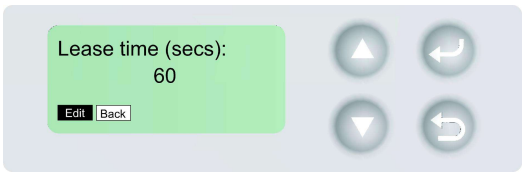
b) Select **Stop** to stop the DHCP server.



c) To configure **Start & End IP addresses**, select **IP address**. The LCD display will show the current Start & End IP addresses, select **Edit** to make changes to the Start & End IP addresses. After editing, select **Save** to save the new Start or End IP addresses.



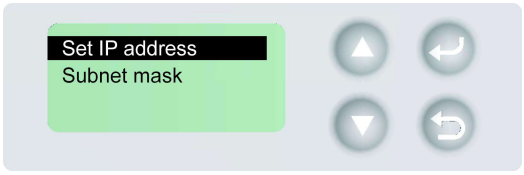
d) To configure the **Lease Time**, select **Lease Time**. The LCD display will show the current Lease Time, select **Edit** to make changes to the Lease Time (from 0 to 43200 seconds), after editing, select **Save** to save the new Lease Time.



Note: Start and End IP addresses – These are the IP addresses that will be assigned by the DHCP server to the laptops and computers that are connected to SABRE™I. Note: Lease Time – This refers to the connection time of the IP connection.

X. Local IP address Setting

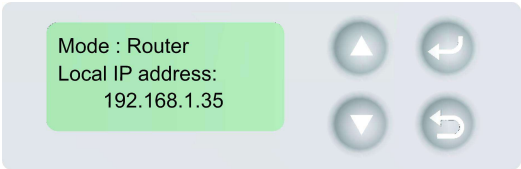
a) From **Interfaces** , select **Ethernet** > **Local IP address**. Continue with the following:



i. To set the **Local IP address**, select **Set IP address**. The LCD display will show the current Local IP address, select **Edit** to make changes to the Local IP address. After editing, select **Save** to save the new Local IP address.
ii. Select **Subnet Mask** and LCD will display current Subnet Mask.

XI. Status

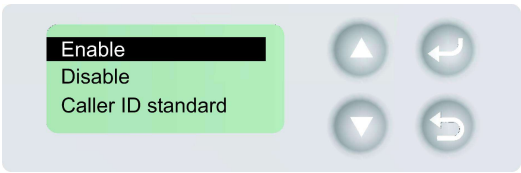
a) From **Interfaces** , select **Ethernet** >**Status**. The LCD display will show the connectivity mode and Local IP address status.

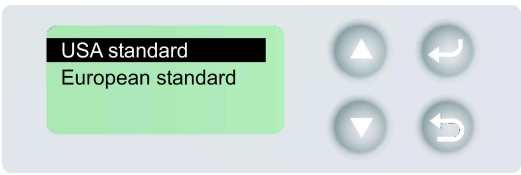


XII. Telephony Settings

a) From the Ready State screen, select **Menu** > **Settings** > **Interfaces** > **Telephony**. Continue with the following:

i. Select **Enable** to enable Telephony feature.
ii. Select **Disable** to disable Telephony feature.
iii. Select **Caller ID standard** > **USA standard** or **Europe standard** > press ENTER. SABRE™ I will set to the new standard.





XIII. My Terminal

From the Ready State screen, select **Menu** > **Settings** > **My terminal**.

a) To view the current GPS status, select **GPS status**. The LCD display will show the current Lat/Long position.

b) To view the IMEI number, select **IMEI number**.

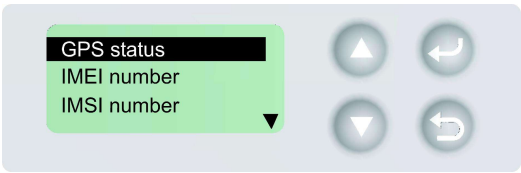
c) To view the IMSI number, select **IMSI number**.

d) To view the current software version, select **Software version**.

e) To view the current hardware version, select **Hardware version**.

f) To view the manufacturer's name, select **Manufacturer**.

g) To view the SIM card number, select **Own number**.

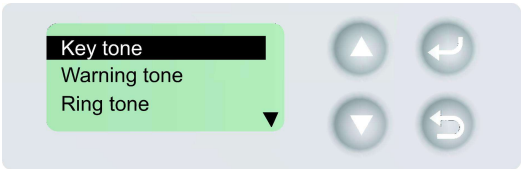


XIV. Tone Settings

Configure the alert tones for the Key, Warning, Ringing and Message.

a) From the Ready State screen, select **Menu** > **Settings** > **Tone** > **Key tone**, **Warning tone**, **Ring tone** or **Message tone**.

b) To select the tone types, select **Tone** and choose from the available 5 melodies with the **Up/Down** button and press ENTER to save the new melody.



c) To select the volume level, select **Volume** and adjust the volume from **Soft** to **Loud** with the **Up/Down** button and press ENTER to save the new volume setting.

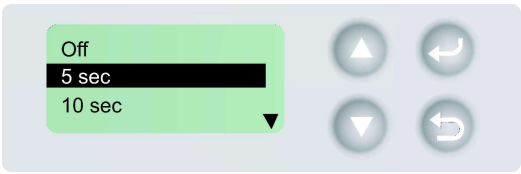
d) To turn off all tones, from **Tone**, select **All Tones off.**

e) To re-enable all tones, select **All Tone on.**

XV. Display Settings

Configure the Contrast and Brightness of the LCD display.

a) From the Ready State screen, select **Menu > Settings > Display.**



b) To adjust the Contrast level, select **Contrast** and adjust the contrast level from 0 to 12 with the **Up/Down** button and press ENTER to save the new contrast setting.

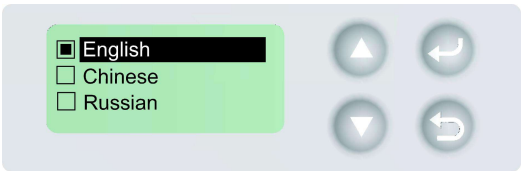
c) To select the **Brightness** level, select **Brightness** and adjust the brightness from level 0 to 5 with the **Up/Down** button and press ENTER to save the new brightness setting.

d) To control the LCD **backlight**, select Backlight and choose the duration settings (Off, 5 sec to 60 sec) with the **Up/Down** button and press ENTER to save the new backlight setting.

e) To control the Dim time, select **Dim time** and choose the settings from 0 to 2 with the **Up/Down** button and press ENTER to save the new dim time setting.

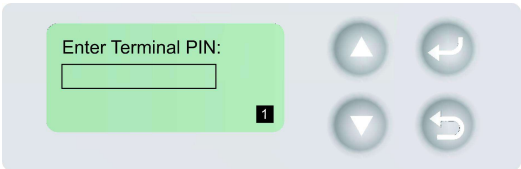
XVI. Language

Configure the SABRE™ I operation language. From the Ready State screen, select **Menu > Settings > Language > English, Chinese, Russian, French, Japanese** or **Spanish.**



XVII. Reset Settings

Reset the SABRE™ I to factory default settings.



a) From the Ready State screen, select **Menu > Settings > Reset settings > Enter Terminal PIN > OK.**

b) The SABRE™ I will be reset to Factory default settings.

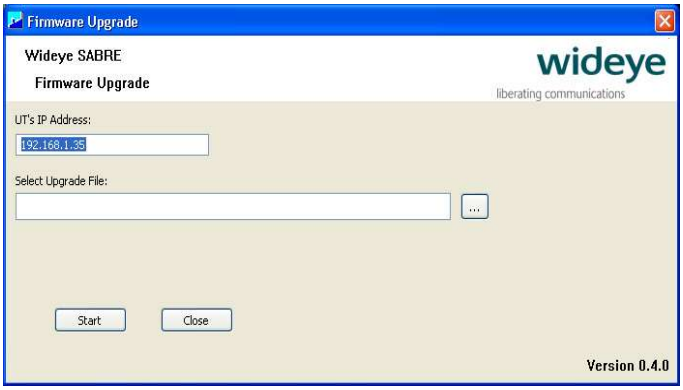
4.7 Firmware Upgrade

Insert SABRE™ I product CD and from the SABRE™ I **Main Setup Menu**, select **Software Utilities** option and follow instructions accordingly.

Please download the new firmware at the recommended web-site and save it in your PC/Laptop's hard drive. Select **Firmware Upgrade** to perform upgrade of the firmware. Make sure the Terminal is switched ON and connected to the PC via Ethernet cable and then click on **"RUN"**.

Select the downloaded new firmware (with the file name extension ".sb1", e.g., R001.1.0.sb1) and click on **"Start"**. Firmware upgrade will take about 10 to 12 minutes to complete. So, please wait patiently until the whole process is complete.

If you encounter any errors (such as timeout errors) during the firmware upgrade process, do not select the retry option but restart the Terminal (by unplugging the power supply, removing the battery, putting the battery back, re-plugging the power supply and then pushing the power switch), close and restart the Firmware Upgrade Utility and then retry the firmware upgrade process from the beginning.



Warning!!!:
DO NOT abort the firmware upgrade process half way through or unplug the power of the Terminal during the firmware upgrade. Doing so will corrupt the exiting firmware loaded onto the Terminal.

Appendix 1 Technical Specifications

Air Interface	
Inmarsat-4 Air Interface	
Frequency Band	Receive: 1525MHz – 1559MHz Transmit: 1626.5MHz – 1660.5MHz
Channel Modulation	Receive: QPSK and 16QAM Transmit: pi/4 QPSK
Antenna	Built-in Patch Antenna, 8.5dBic
GPS Air Interface	Integrated GPS receiver & antenna
Bluetooth Air Interface	
Frequency Band	2400MHz – 2497MHz
Channel Modulation	GFSK
Maximum Bearer Data Rate	Receive: Up to 384 kbps Transmit: Up to 240 kbps
Streaming IP	32/64 kbps

Hardware Interface	
Ethernet/LAN	1 x RJ45 Ethernet port Standard: IEEE 802.3 10Base-T Data Rate: 10Mbps Transmission Mode: Full/Half Duplex Maximum Cable Length: Up to 100 meters or 328 feet
Phone	1 x RJ11 PSTN port Standard: Complex Impedance–ETSI EG201 188
Bluetooth	1 x integrated Bluetooth access point Standard: Bluetooth Specification 1.2 (Class 1) Data Rate: 1Mbps Maximum Link Distance: Up to 100 meters / 328 feet Supported Profile: Generic Access Profile Service Discovery Application Profile Serial Port Profile Dial-Up Networking Profile Headset Profile (Audio Gateway) Cordless Telephony Profile (Gateway)

Appendix 1 Technical Specifications

User Interface	
Inmarsat LaunchPad	The Inmarsat LaunchPad SABRE™ I software driver and related software are contained in the product CD included with the SABRE™ I . This software allows SABRE™ I to be accessed via a PC or laptop. Functions supported by LaunchPad are as follows: - System Setup: Assists the user in accurately pointing the terminal at the Inmarsat-4 satellite for maximum signal strength. - Data streaming at selected rates. - Telephony - Security settings - Data logging - SMS - GPS - Network Services - Usage tracking
LCD display on SABRE™ I	The built-in Man Machine Interface (MMI) is designed with 4 navigation buttons and an LCD to facilitate its operation Functions supported by the SABRE™ I MMI (or now known as LCD) are as follows: - Assists the user in accurately pointing the terminal at the Inmarsat-4 satellite for maximum signal strength - If a GPS fix cannot be obtained, it allows the user to use the last-stored GPS fix. - Dial contacts that are available on the SABRE™ I phonebook and SIM phonebook, and to view the call history - Make an emergency call - Define PIN lock - Configure the Ethernet interface of SABRE™ I to operate in IP Mode, which allows the user to connect to the Internet without using the computer to perform authentication - Configure the built-in DHCP server - Configure the Bluetooth access point and to pair the SABRE™ I with Bluetooth devices - Configure CallerID standard - Call feature configuration - Terminal configuration - Display configuration for the built in LCD display - Tone Configuration for the SABRE™ I Terminal - Language selection for the SABRE™ I Terminal.
CTP Handset (optional)	Wideye Bluetooth Handset (optional) Support instructions over the Bluetooth air interface to perform configuration and functions via the optional wideye Bluetooth Handset.

Appendix 1 Technical Specifications

Operating System Support	
Serial/Ethernet Device Driver	Microsoft Windows 2000, XP Mac OS 10.1 & above
Inmarsat LaunchPad	Microsoft Windows 2000, XP Mac OS 10.1 & above

Application Support	
VPN Client	Based on PPTP, L2TP and IPSec
VoIP	H.323 and SIP
FoIP	T.37 and T.38
MPEG Streaming	H.263 and H.264
Email	POP3, SMTP, IMAP
Messaging	Yahoo Messenger MSN Messenger
Conferencing	Microsoft Netmeeting
Web Browsing	HTTP and HTTPS

Battery	
Type	Lithium ion
Transmit Time	1 hour continuous transmit at data rate <= 72Kbps
Receive Time	3 hours continuous receive (without transmit)
Standby Time	36 hours typical

Envoirnmental - SABRE™ I:	
Operating Temperature (Ambient)	-20°C to +70°C, -4°F to +158°F
Charging Temperature (Ambient)	0°C to +45°C, +32°F to +113°F
Storage Temperature (Ambient)	
Terminal Battery	-40°C to +80°C, -40°F to +176°F -20°C to +45°C, -4°F to +113°F
Operating Humidity	95% non-condensing at +40°C or +104°F
Storage Humidity	5% RH to 95%RH
Water & Dust	IP54

Appendix 2 The BGAN Systems

Inmarsat's Broadband Global Area Network (BGAN) is the world's first mobile communications service of any kind to provide both voice and broadband data simultaneously through a single, truly portable device on a global basis.

It is also the first mobile communication service to offer guaranteed data rates on demand.

Delivered via the world's most sophisticated commercial communication satellites, BGAN provides affordable, mobile broadband services at speeds up to half a megabit in a highly portable, easy to use form.

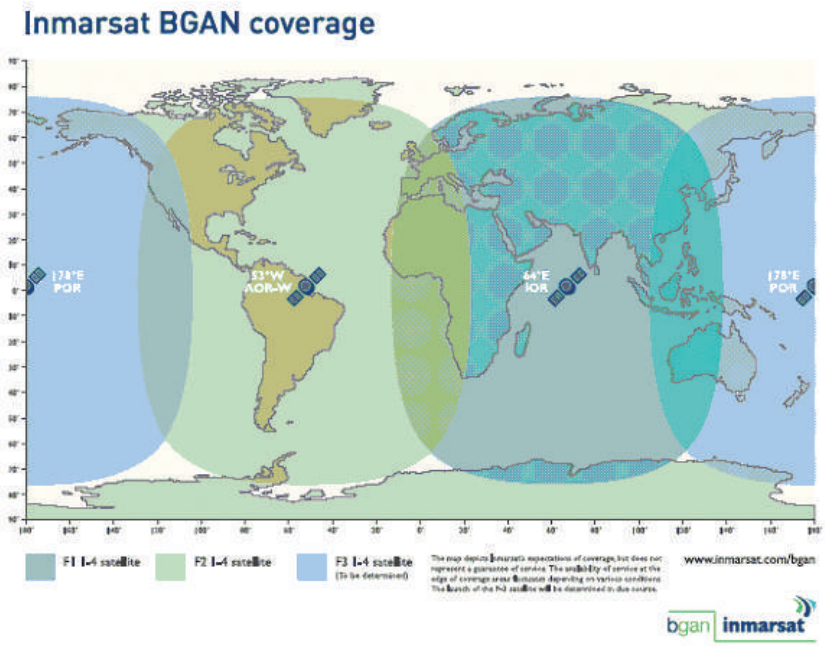
Delivering the global broadband mobile office

BGAN extends the boundaries of the broadband mobile office that 3G services are beginning to deliver.

	Data	With the Standard IP service you can access your corporate network via a secure VPN connection at speeds up to 492 kbps, to use e-mail and other office applications, browse the Internet and send large file attachments.
256	Streaming IP	For applications where quality of service is paramount, such as live video or video-conferencing, BGAN offers a Streaming IP service up to 256 kbps on demand. You have the flexibility to choose the data rate on a case-by-case basis, depending on your application.
	Phone	With BGAN, you can make a phone call at the same time as accessing your data applications. You can use a standard desktop phone or custom handset. Voicemail and other standard 3G mobile supplementary services are also available.
	Text	BGAN enables you to send and receive text messages via your laptop – up to the standard 160 characters – to or from any mobile phone.

BGAN Coverage

BGAN delivers seamless network coverage across most of the world's land mass. It enables you to get broadband connectivity wherever you go – not just in major cities or at the airport. The BGAN service is accessible throughout Europe, Africa, the Middle East, Asia, North, South and Central America.



Appendix 3 SABRE™ I LCD Menu Tree Flow Chart

The SABRE™ I LCD Menu Tree Flow Chart shows the user the various displays, features and options that the built in user Interface of the SABRE™ I offers.

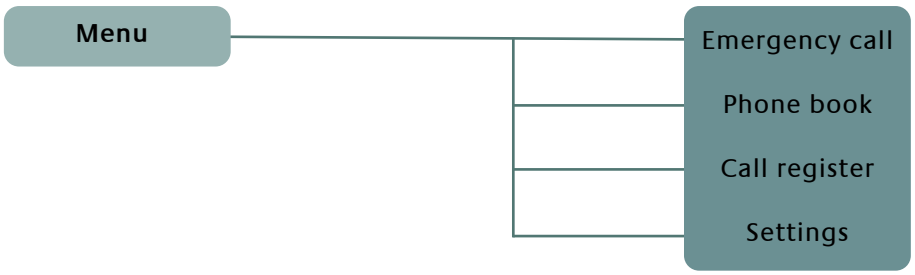


Figure 1: Menu

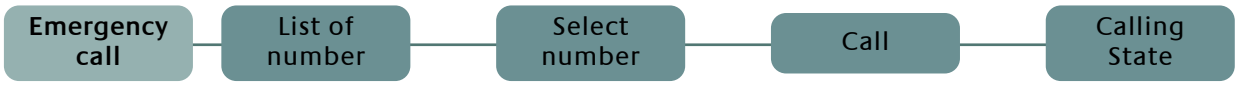


Figure 2: Emergency call

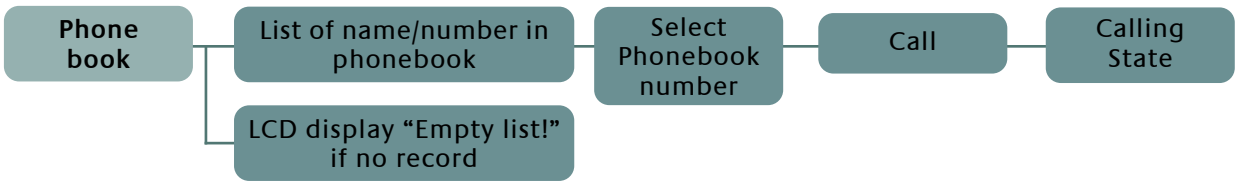


Figure 3: Phone book

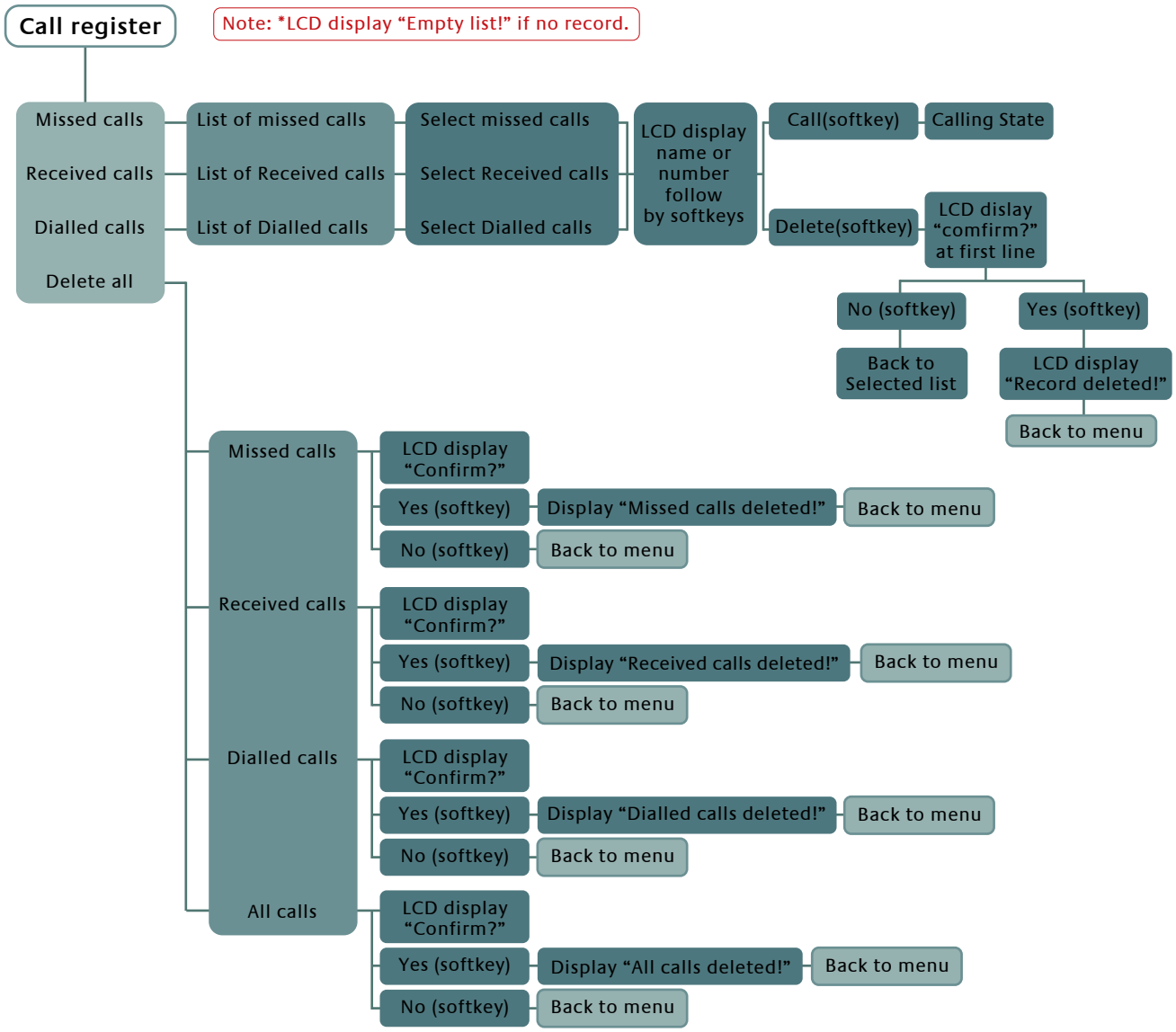


Figure 4: Call register

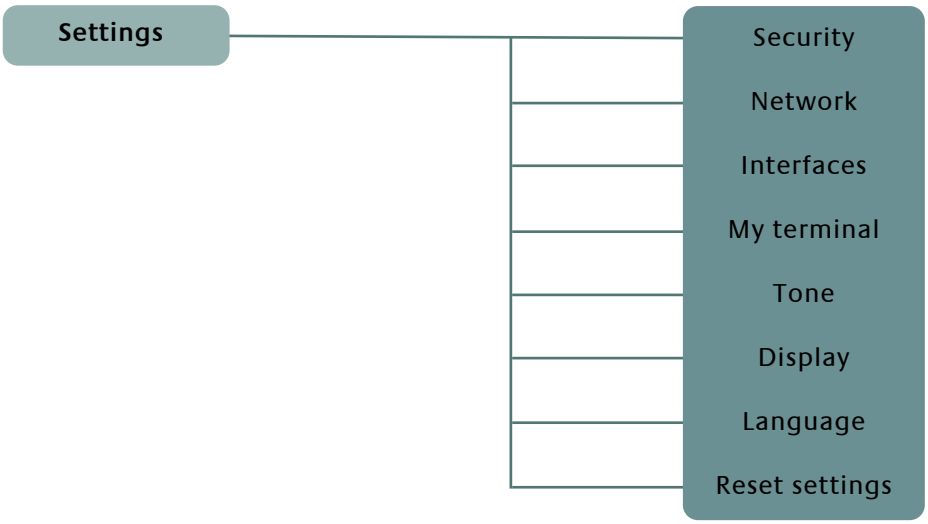


Figure 5: Settings

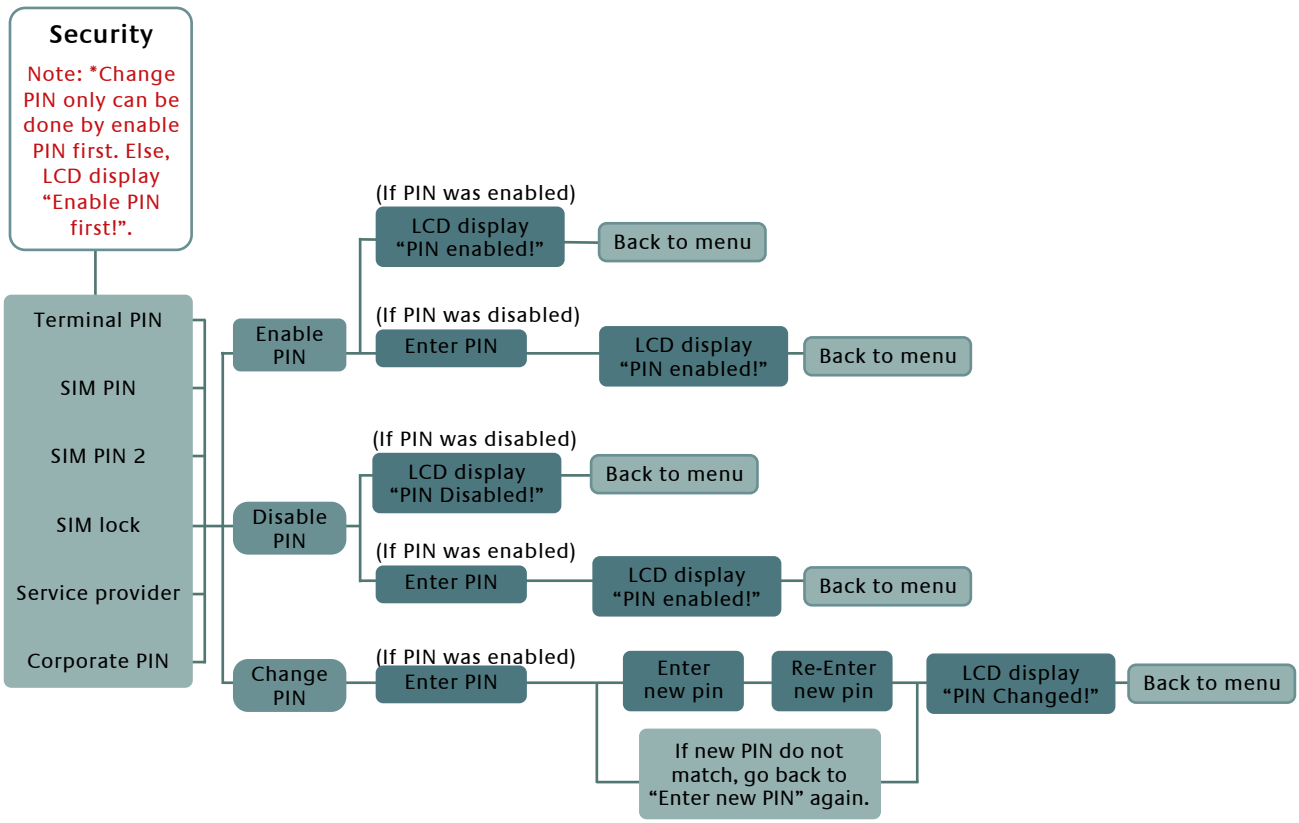


Figure 6: Security

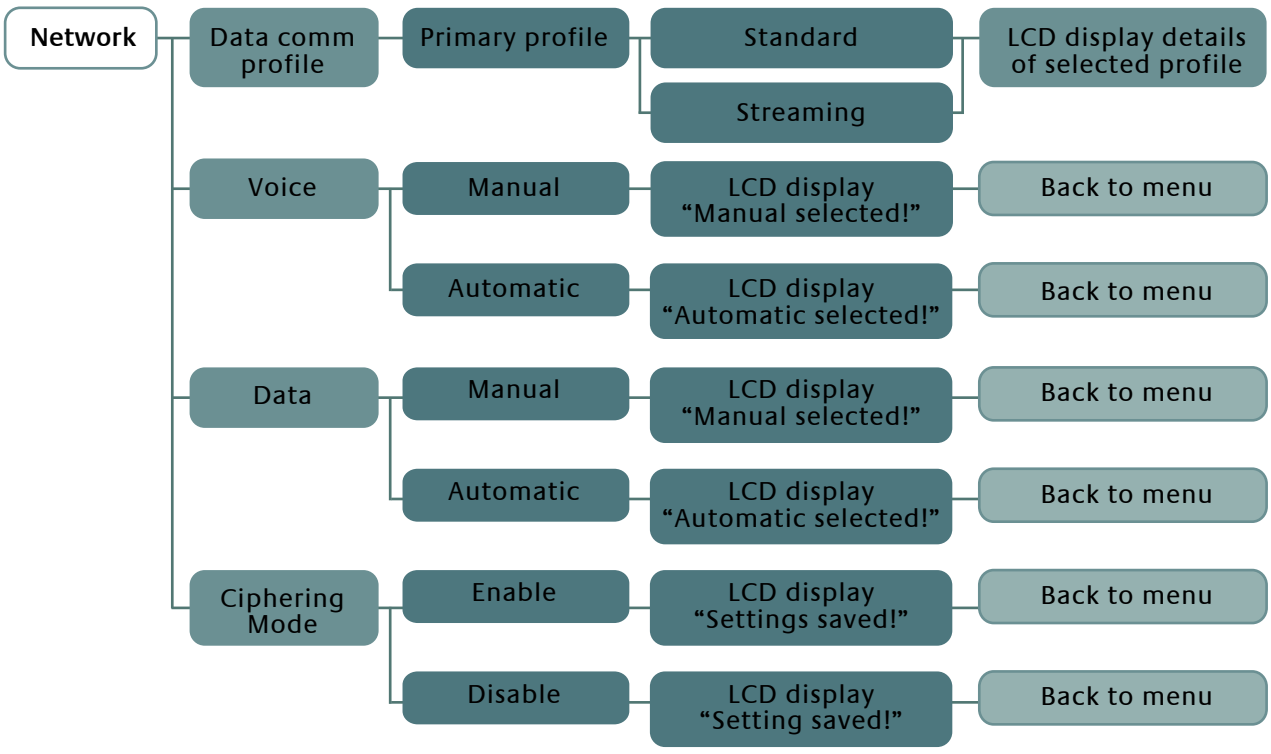
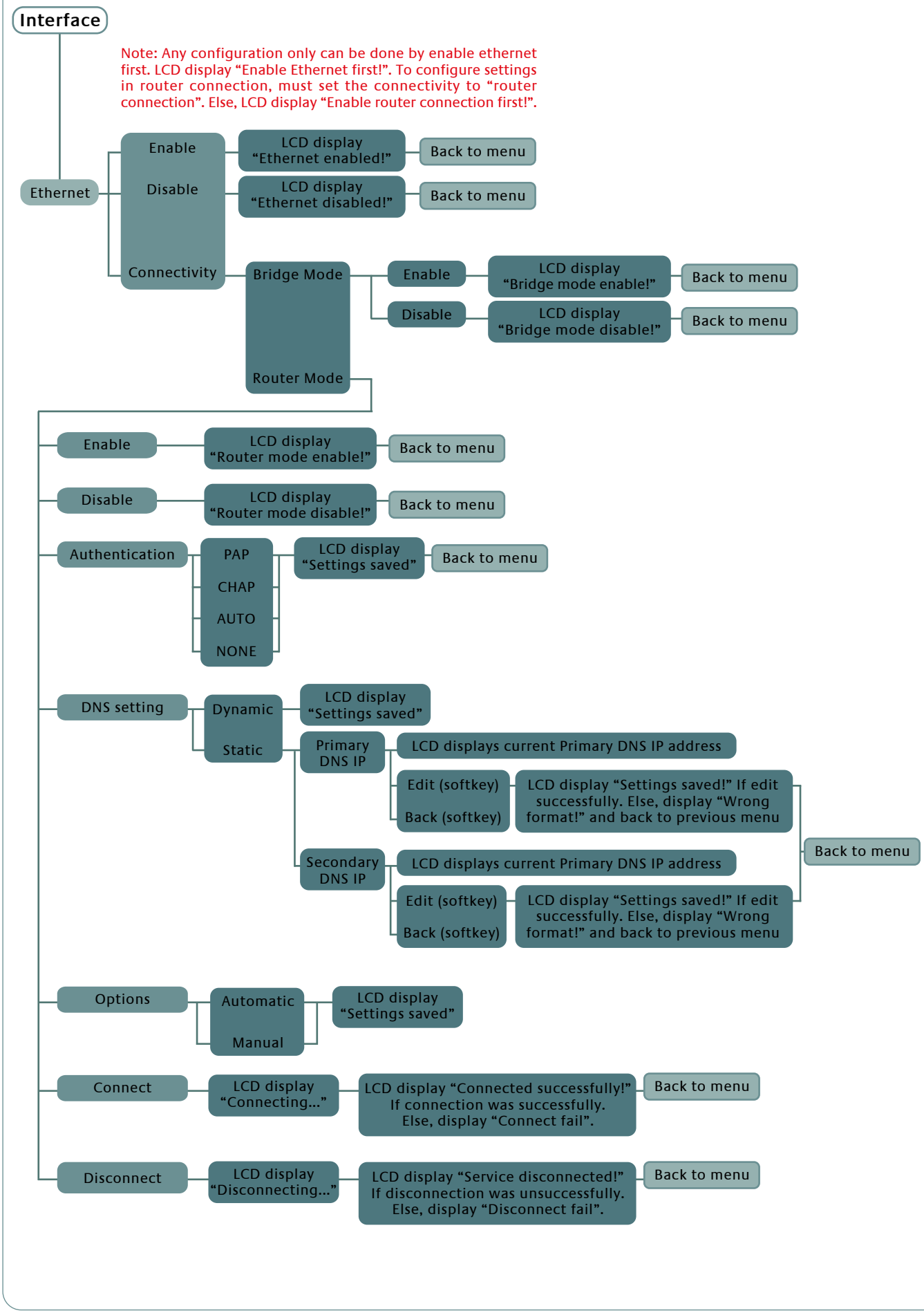


Figure 7: Network


Interface
Note: Any configuration only can be done by enable ethernet first. LCD display “Enable Ethernet first!”. To configure settings in router connection, must set the connectivity to “router connection”. Else, LCD display “Enable router connection first!”.
Ethernet
Enable
LCD display “Ethernet enabled!”
Back to menu
Disable
LCD display “Ethernet disabled!”
Back to menu
Connectivity
Bridge Mode
Enable
LCD display “Bridge mode enable!”
Back to menu
Disable
LCD display “Bridge mode disable!”
Back to menu
Router Mode
Enable
LCD display “Router mode enable!”
Back to menu
Disable
LCD display “Router mode disable!”
Back to menu
Authentication
PAP
CHAP
AUTO
NONE
LCD display “Settings saved”
Back to menu
DNS setting
Dynamic
LCD display “Settings saved”
Static
Primary DNS IP
LCD displays current Primary DNS IP address
Edit (softkey)
Back (softkey)
LCD display “Settings saved!” If edit successfully. Else, display “Wrong format!” and back to previous menu
Secondary DNS IP
LCD displays current Primary DNS IP address
Edit (softkey)
Back (softkey)
LCD display “Settings saved!” If edit successfully. Else, display “Wrong format!” and back to previous menu
Back to menu
Options
Automatic
Manual
LCD display “Settings saved”
Connect
LCD display “Connecting...”
LCD display “Connected successfully!” If connection was successfully. Else, display “Connect fail”.
Back to menu
Disconnect
LCD display “Disconnecting...”
LCD display “Service disconnected!” If disconnection was unsuccessfully. Else, display “Disconnect fail”.
Back to menu

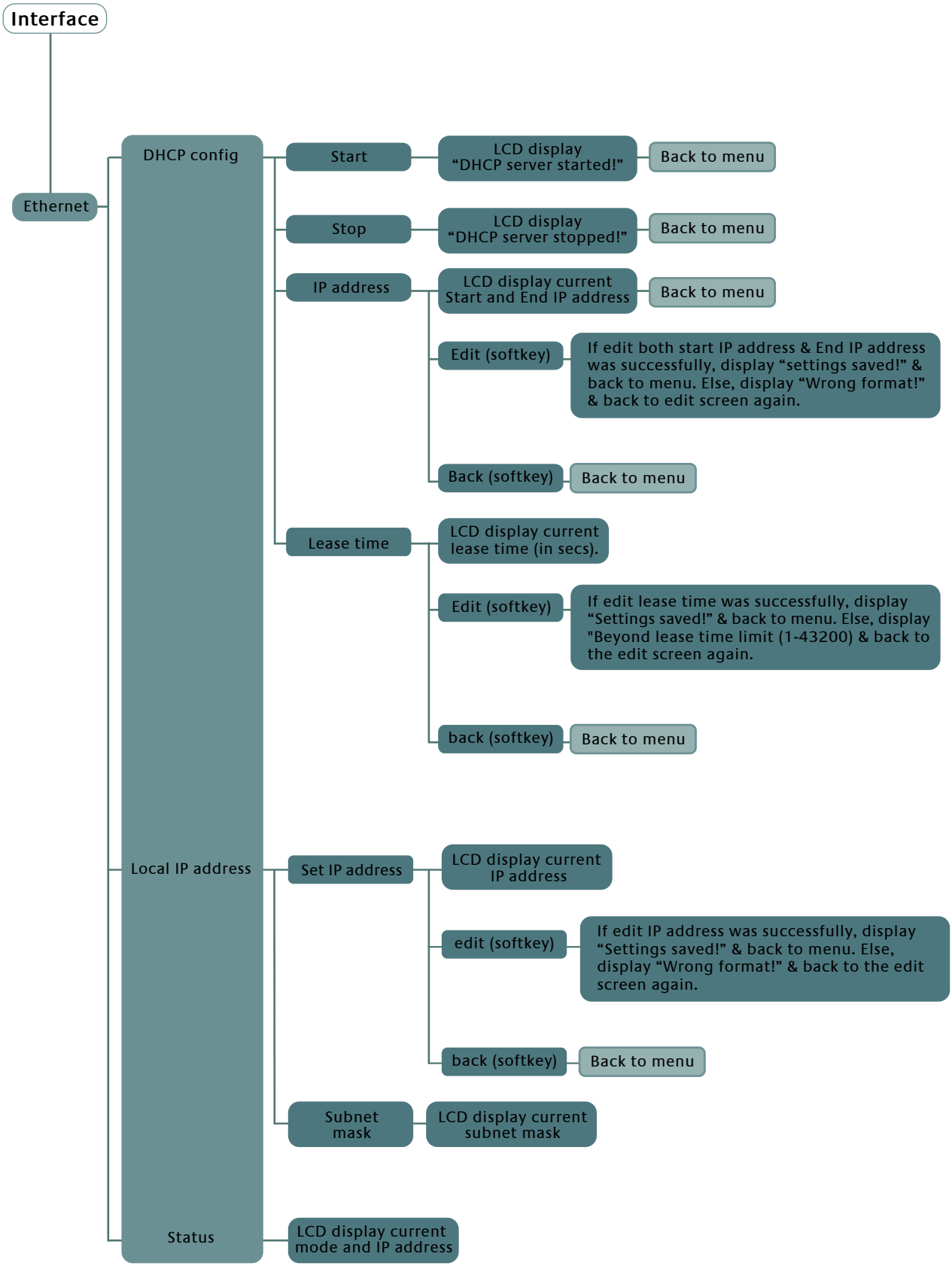


Figure 8: Interfaces-Ethernet

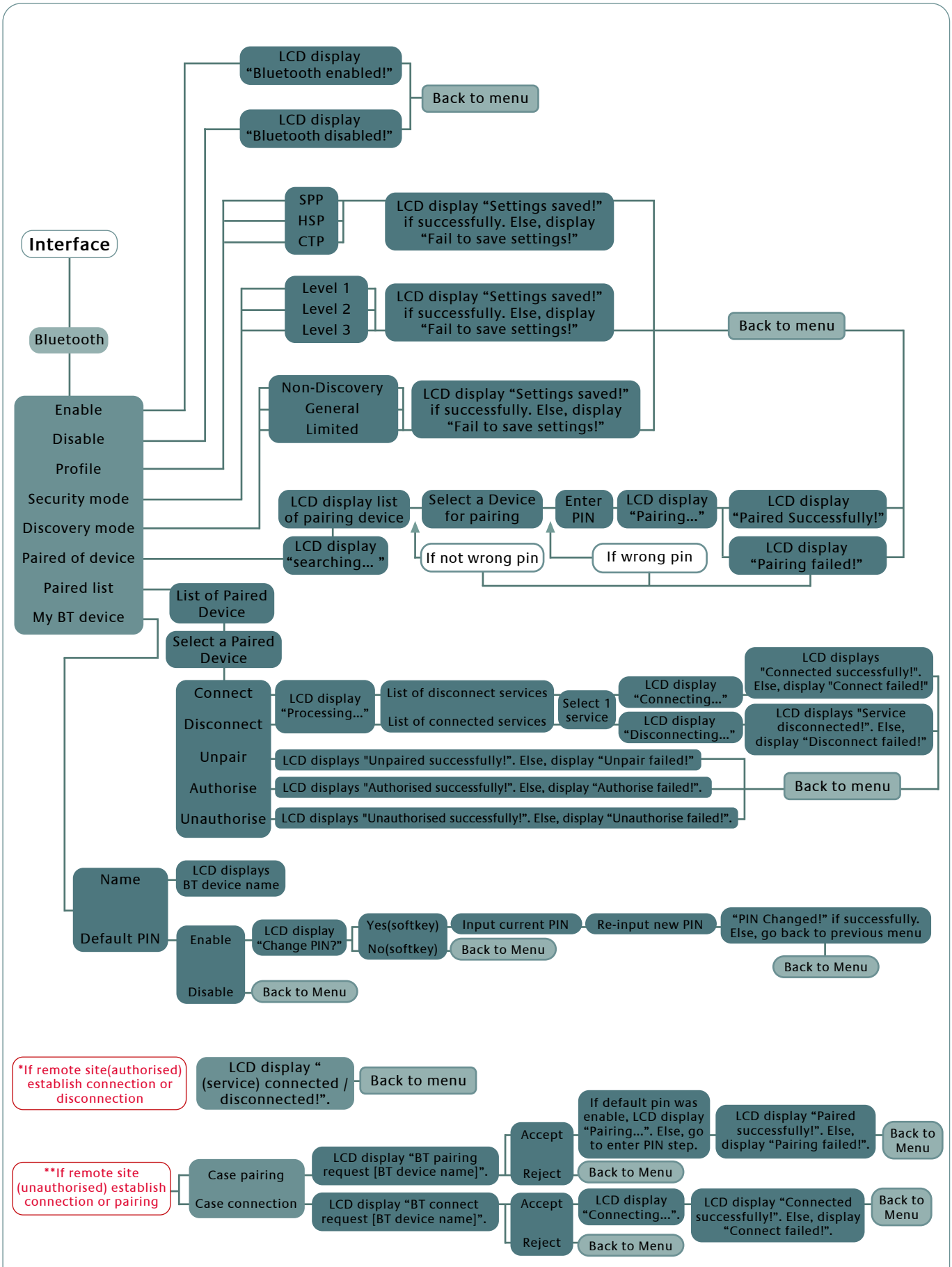


Figure 9: Interface-Bluetooth

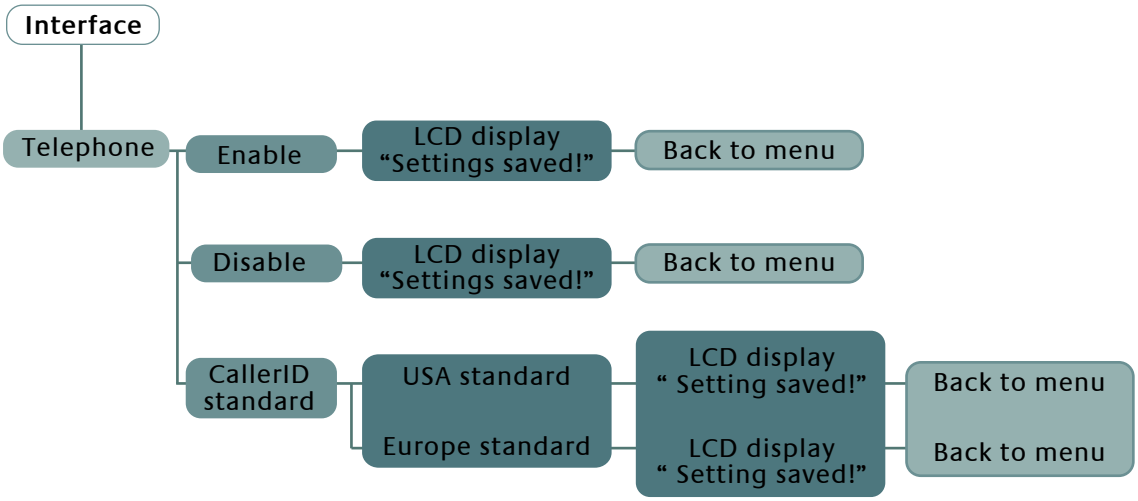


Figure 10: Interfaces-Telephony

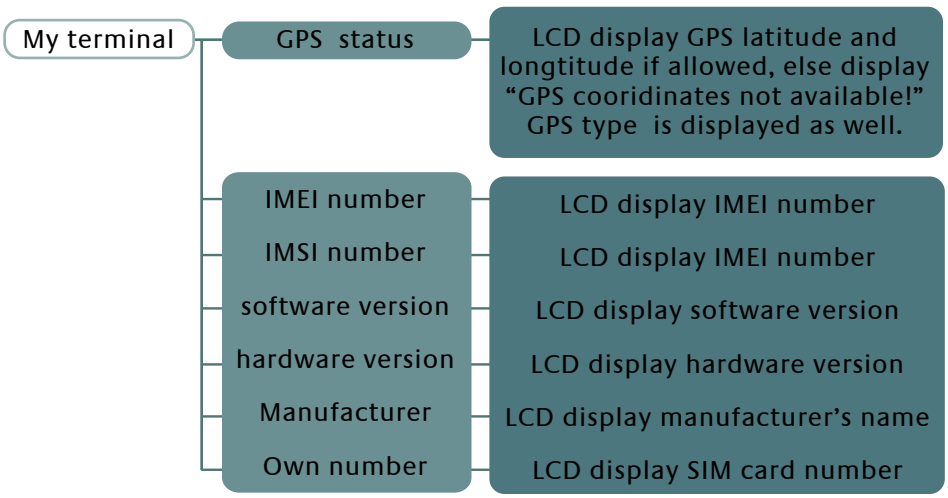


Figure 11: My Terminal

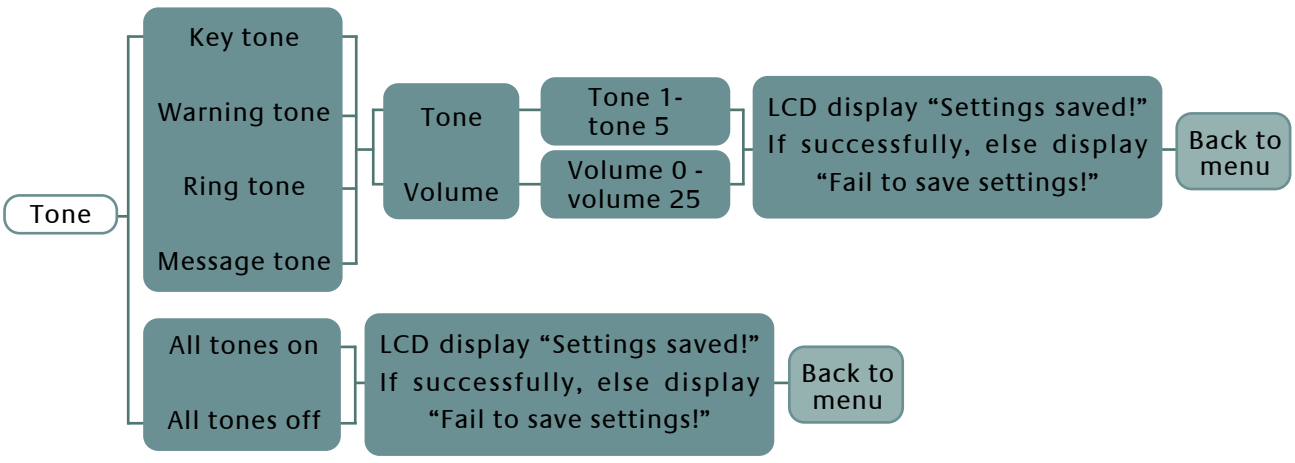


Figure 12: Tone

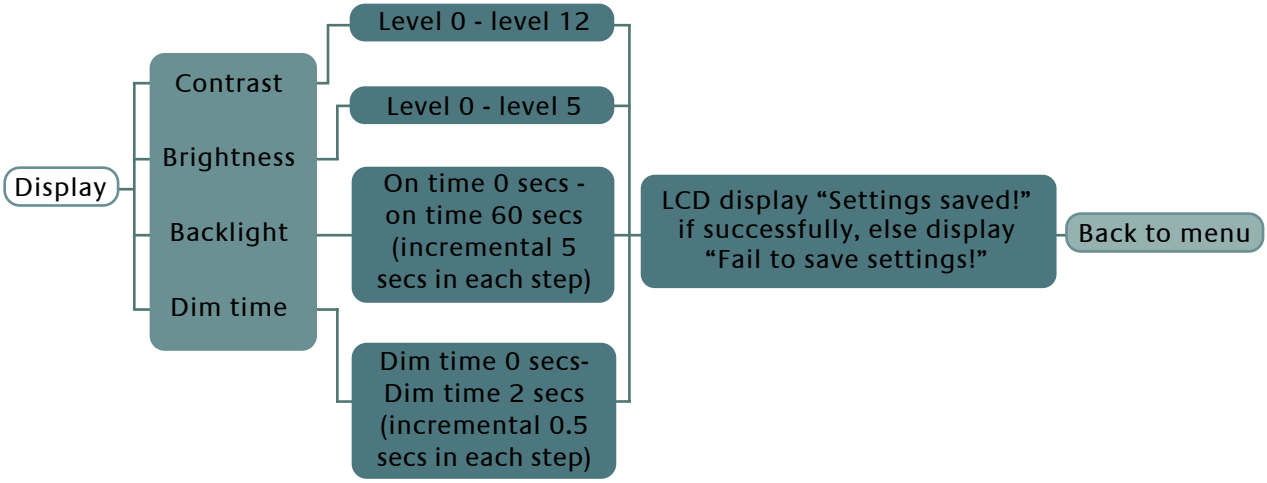


Figure 13: Display

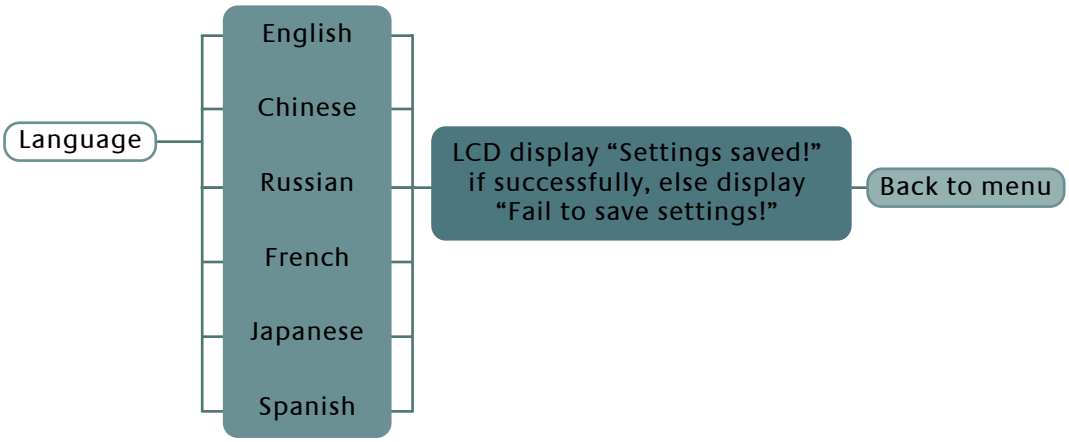


Figure 14: Language

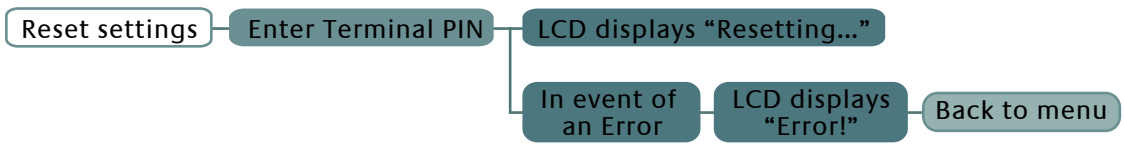
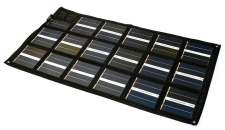


Figure 15: Reset settings

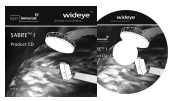
Appendix 4 Accessories

Accessories (Standard and Optional)

These are the accessories available to be used with SABRE™ I. Accessories in RED are optional. Purchase and ordering of all accessories can be made from the SABRE™ I distributors.

No		Description	Order Quote	Specifications
1.		Bluetooth Handset	SB1/BCP1000	• Bluetooth v1.2 compliant • 100m range (class I) • LCD 15" 128x128 CSTN 65k colour display • Remote terminal access to SABRE™ I • Power Supply: 2 x AAA (LR03) 1.5V Alkaline or 1.2V Ni-MH 500mA battery pack.
2.		Corded Analog Handset	SB1/AH100	• Basic Analog phone function • In-use backlight LED • RJ11 connector
3.		Solar Panel	SB1/SOLAR10	• 15 V, 2 A, 45 panels • Approx. 3 kg
4.		Primary Battery Pack	SB1/PBATT	• 10.8V, 2050mAH • 208x26x25 (mm) • Approx. 180 g
5.		Secondary Battery Pack	SB1/SBATT	• 16V, Weight 770g • 230 X 165 X 15 mm
6.		Hard Carrying Case (Customer compartment for SABRE™ I)	SB1/HCASE10	• Int: 501x279x193 (mm) • Ext: 559x351x229 (mm)

Appendix 4 Accessories

No		Description	Order Quote	Specifications
7.		Cable Pack	SB1/CABLEPK	• 6P4C RJ11 Telephone Cord (1.8m) • 8P4C RJ45 Cat.5 Network Cable (1.5m)
8.		AC/DC Power Adapter	SB1/SPA	• Input: 100V- 240V, 50/60Hz, 1.2A • Output: 15V, 2.8V
9.		3 Power Cords (Euro, US, UK)	SB1/PCPK	• 2-pin Euro-type • 2-pin US-type • 3-pin UK type
10.		In-vehicle charger	SB1/AMC10	• Input: 10V – 28V • Output: 15V, 2.8A
11.		Canvas Carrying Case (Customised compartment for SABRE™ I)	SB1/CCASE10	• 37.75x37.75x12.70 (mm) • Sling and back-pack
12.	 	Non-Electrical Accessories	SB1/NELECPK	• Product CD • Quick Start Guide

Appendix 5 Accessory User Guide

The following accessories are covered in Appendix 6:

1. Bluetooth Handset (SB1/BCP1000).
2. Corded Analog Handset (SB1/AH100).
3. Primary Battery Pack (SB1/PBATT).
4. Secondary Battery Pack (SB1/SBATT).
5. In-vehicle charger (SB1/AMC10).

5.1 SB1/BCP1000 Bluetooth Handset

I. Pairing with SABRE™ I

a. Enable bluetooth on SABRE™ I.
(As per Chapter 4, section 4.3)

b. Turn On the Bluetooth Handset.

c. Press the “Search all” function on the Bluetooth Handset.

d. SABRE™ I Accept request to “9d:20:XX:XX:XX” or “PIA-8029d” Select “Yes” “Enter” Button

e. SABRE™ I Enter Pin (0000)
OK
Enter Button
“Paired Successfully!”

II. To make a call:

a. Key in: <00><Country Code><Telephone #>
“Off-Hook” Button.

b. SABRE™ I will proceed to make a call.

III.To end a call:

a. Press the “On Hook” Button.

b. On the LCD display:

5.2 SB1/AH100 Corded Analog Handset

I. Features

a. General Features	b. Technical Specifications:
Stylish design	Standard: Complex Impedance – ETSI EG201 188
Inuse LED	Connector: RJ11
Last Number Redial	Dimension of Handset: L* W * H = 122*45*24 mm
Handset volume setting	Weight Of Handset: Approximately 150 grams
DTMF dialing	
Mute	
Flash	

II. Operation

a) Connection and use of the SB1/AH100 Corded Analog Handset

i. Connect the curl cord to the BGAN RJ11 socket (See Figure 3-2).
ii. You will hear a click when the modular plug is in place.
iii. Press the Off hook button and listen for the dial tone.
iv. Once a dial tone is heard, your telephone is operational.
v. Press the On hook (red) button to on hook the phone.

b) Other operations

i. **Flash Button**
During conversation mode, additional network services such as “Call Waiting” can be accessed via the use of the flash button.

ii. **Redial Button**
Press the Off hook button and press the Redial Button if you wish to redial the last number dialed.

iii. **Volume Control Button**
The handset earpiece volume can be adjusted using VOL + and VOL – button.

5.3 SB1/PBATT Primary Battery Pack

FIGURE 6.4-1: Primary Battery Pack for SABRE™ I

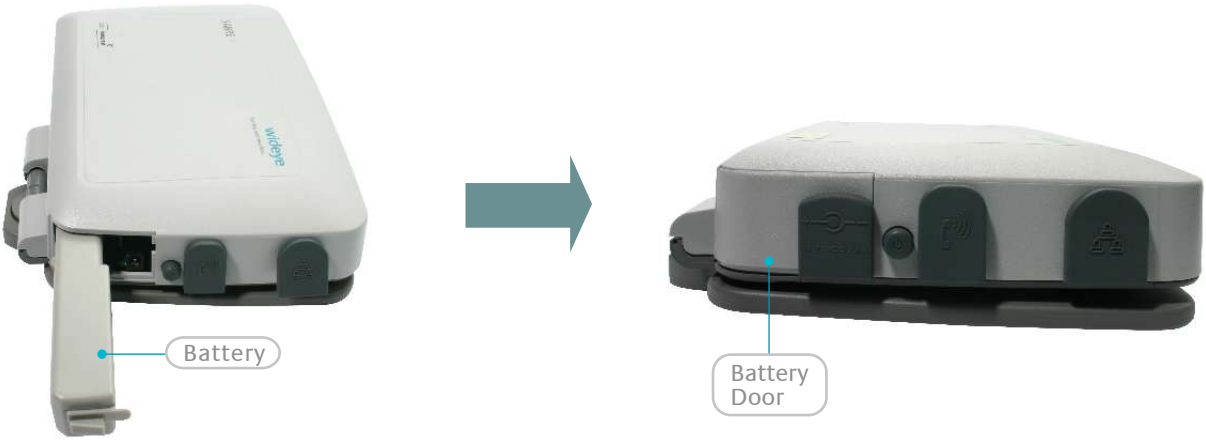


FIGURE 5.4-2: Insertion of Primary Battery Pack into SABRE™ I

I. Features

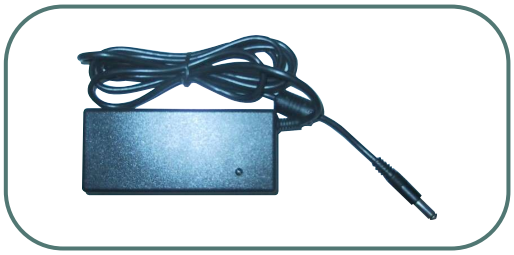
10.8V, 2050mAH
208 x 26 x 25 mm
Approximately 180g

5.4 SB1/SBATT Secondary Battery Pack

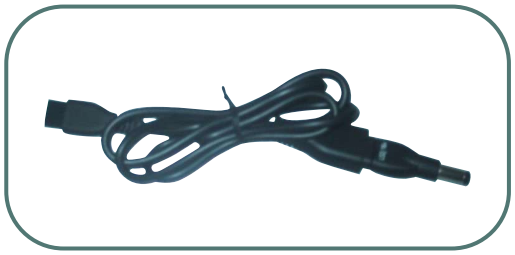
I. Secondary Battery Pack and its accessories

Secondary Battery Pack

Power Cord



Power Adapter



Secondary Battery Pack Power Supply Outlet

FIGURE 5.5-1: Secondary Battery Pack and it's accessories for SABRE™ I

II. Operation

a) Charging the Secondary Battery Pack:

FIGURE 5.5-2: Setup for charging the Secondary Battery Pack

i. Connect up the external battery and cable accessories as shown in the above setup.

1) Attach the power tip of the AC adapter to the charging port of the battery pack.
2) Insert the AC Plug into the wall outlet.
3) The charging indicator will be Red during charging and turn Green when charging completes.

Note: Do not let the battery pack supply power to SABRE™ I when the battery pack is undergoing charging. This will increase charging efficiency and completes charging in a shorter time.

b) Using the Secondary Battery Pack

i. Press the “Power” switch button on the battery pack and check the LED Indicator. If only one light is on or no light is on please charge the battery pack first (See charging the Secondary Battery Pack).

ii.

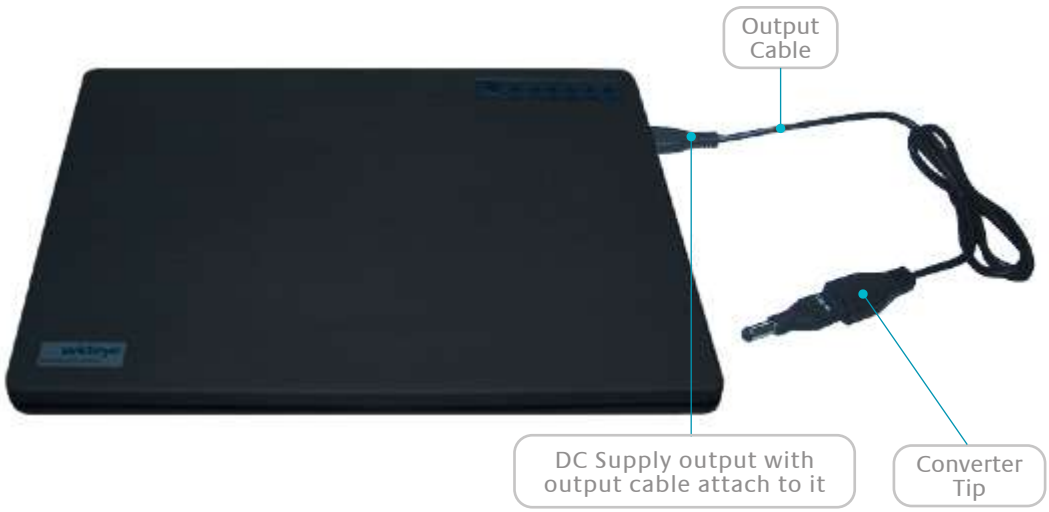


FIGURE 5.5-3: Setup for using the Secondary Battery Pack to supply power to SABRE™ I

1) Connect the Secondary Battery Pack to the output cable according to the above setup.
2) Connect the Converter Tip with the output cable.
3) Plug the DC OUT end of the cable into the DC OUT jack of the battery pack.
4) Plug the Converter Tip into the DC Input of SABRE™ I.
5) The Secondary Battery Pack begins to supply power to SABRE™ I.

iii. When the micro switch "Power" button is pressed, the system will indicate the amount of power that still remains for four seconds.

0% ≤ Remaining Power ≤ 20%	1 LED	
20% ≤ Remaining Power ≤ 40%	2 LED	
40% ≤ Remaining Power ≤ 60%	3 LED	
60% ≤ Remaining Power ≤ 80%	4 LED	
80% ≤ Remaining Power ≤ 100%	5 LED	

Note: When the LED light is flicking, the remaining power is less than 10% or the voltage of the battery pack is lower than 10.3V. The power inspecting system will not consume the battery's power when the button "POWER" is not pressed.

c. Product specifications

i. Weight: About 770g
ii. Chemistry: Lithium Polymer
iii. Charging Input: 16V, 4.5 A by AC adaptor
iv. Output Voltage: 16V
v. Output current: ≤ 3.5A
vi. Maximum Output Power: 60 W
vii. Charging Time: About 4 ~5 Hours
viii. Output Capacity: 66.6Wh / 6000mAH
ix. Cycling life: at least 300 times. Life is terminated when its discharging capacity is less than 80% of the nominal capacity for 3 consecutive times.
x. Dimension: 230 X 165 X 15 mm.

d. Accessories

i. 1 AC Adaptor Set (Power cord and Power adapter)
ii. 1 Output cable (Secondary Battery Pack supply outlet and converter tip)
iii. 1 User Manual

e. Safety Notice

Battery leakage and explosion preventive measures:

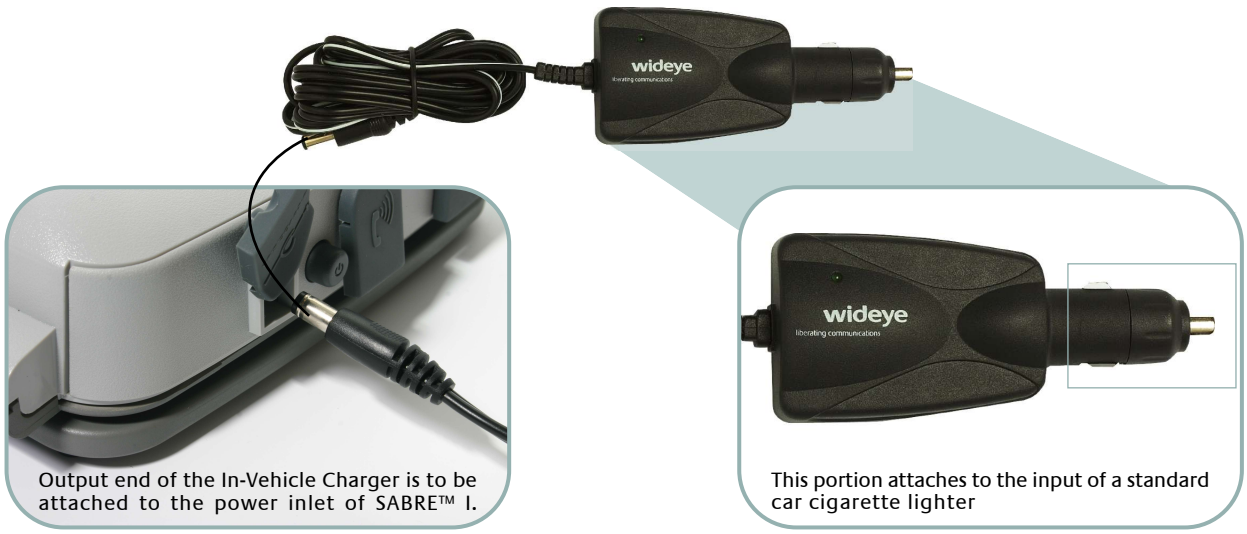
f. Danger

i. Do not immerse the battery pack in water, seawater or expose it to excessive moisture.
ii. Do not use, expose or leave the battery pack near a heat source such as fire or heater.
iii. Do not connect the anode and cathode with wire or other metal objects, which will cause the short circuit.
iv. Do not transport or store the battery together with necklace, hairpin or other metal objects.
v. Do not strike or throw the battery pack; keep it away from mechanical shock.
vi. Do not pierce the shell of the battery pack with nail or other sharp objects. Do not hammer or hit the battery pack.
vii. Do not disassemble or modify the battery pack, which may cause an electric shock.

g. Warning

i. Do not place the battery into the microwave oven or heating container.
ii. Do not use the battery pack in event that it sends out peculiar smell, generates heat, goes out of shape, changes color or other unusual phenomena.
iii. Move the battery pack away from the fire when it leaks or when it emits peculiar smell.
iv. The electrolytic liquid that has leaked out might cause an explosion or might be a fire hazard.
v. In the event that the electrolytic liquid that leaks out from the battery pack enters into the eyes, do not wipe or rub your eyes. Wash it by water and seek medical rescue immediately. Any delay may cause injury to the eyes.
vi. The battery pack shall not be exposed to temperature above 60 °C. Conditions that will result in this will be in areas such as in a car that is parked under the Sun or under direct sunlight. Conditions such as these will cause the battery pack to over heat or may even cause a fire. This will affect the performance of the battery pack and shortens its cycle life.
vii. For battery pack storage that spans more than three months there is a need to keep the battery at 50% of the specified capacity. The battery pack must be charged once in three months. It should be stored in cool dry surroundings with a temperature range of between -20°C to 50°C. The following are to be avoided: corrosive material, fire source and heat source.
viii. When the battery pack is used by children, please kindly supervise them according to the content of the manual.
ix. In the event of a battery leakage, and the electrolytic liquid come into contact with the skin or clothes, wash the affected area with water immediately. Any delay may result in the inflammation of the skin.

5.5 SB1/AMC10 In-Vehicle Charger



Photograph of an In-Vehicle Charger.

Photograph of an In-Vehicle Charger showing the portion that attaches to the input of the standard vehicle cigarette lighter.

FIGURE 5.6-1: Illustration exemplifying the features and application of the In-Vehicle Charger for use with SABRE™ I.

I. Operation

a) Plug the input of the In -Vehicle Charger (as per Figure 6-1) into the cigarette lighter in the car.

b) The In -Vehicle Charger accepts an input voltage of 12 V to 24 V and produces an output voltage of 15 V, 2A at the output terminal.

c) Plug the output of the In - Vehicle Charger into the power inlet of SABRE™ I. Power to charge the internal battery of SABRE™ I will be supplied by the car via the In -Vehicle Charger.

Appendix 6 Voice Mail Access

When someone leaves a Voice Mail in the user Voice Mail account, the network will send the user a SMS message informing the user of the presence of a Voice Mail in his/her account.

For users that are accessing the mailbox for the 1st time please kindly see below.

Procedures for Voice Mail access:

1. Dial the Voice Mail Number: **00870772001899**
2. For first time access of the Voice Mail, a recording will be available to prompt the user to activate the Voicemail. Voicemail activation will be system guided.

   The following is a brief procedure leading to User Voicemail activation.

   a. The introduction of a four digit PIN followed by **#**.
   b. Confirmation of the PIN Code.
   c. Enter your name or a generic name: Please say **"Test Voice Mail"** (again, for consistency).
   d. Confirm the name by dialling **1**.
   e. Enter a Greeting: Please say **"Test Voice Mail"** (again, for consistency).
   f . Confirm the greeting by dialling **1**.

3. Voice mail features will be available for access subsequently by the user.

Note: These operations are not available for use with the Bluetooth Handset. The Bluetooth Handset can be used to access only new messages.

Appendix 7 Troubleshooting Guide

This section provides a list of commonly encountered problems, their possible causes and solutions.

S/N	Problem	Possible Cause	Solution
1.	SABRE™ I fails to turn on, or functions intermittently when powered by the battery.	Turn on SABRE™ I using the power from the mains via the power adapter. Proceed on with the following steps only if SABRE™ I could be turned on successfully.	
		The internal battery needs recharging.	Charge the internal battery. Check the level of the battery indicator in the display.
		The internal battery is not inserted properly.	Re-insert the internal battery and make sure that the internal battery is inserted properly.
		The internal battery contacts are dirty or damaged.	Clean the internal battery contacts if necessary. Replace the internal battery if the contacts are damaged.
2.	SABRE™ I fails to obtain a GPS fix.	Extended GPS position acquisition time. (Up to 10 minutes.)	Point SABRE™ I's antenna such that it has clear view to the open sky. If SABRE™ I is placed at an unobstructed open area, then it is recommended to make it lay flat facing the sky to obtain GPS fix quickly. If SABRE™ I is placed near window, then it is recommended to place it at about 45 elevation angle facing the clear sky to obtain a new GPS fix
3.	SABRE™ I is unable to receive a signal or the signal that is received from the satellite is weak.	Presence of obstructions between SABRE™ I and the Satellite. Window glass reduces the signal strength of the incoming and outgoing satellite signal.	Ensure that there are no obstructions between SABRE™ I and the BGAN Satellite.
		The antenna is not aligned in the direction of the Satellite.	With the help of the compass and /or Launch Pad "Help me Setup BGAN" feature, ensure that SABRE™ I is pointing

			towards the direction of the Satellite. Adjust the antenna to point in the direction of maximum signal strength.
4.	Unable to start firmware upgrade with SABRE™ I or Time out when transferring file to SABRE™ I during firmware upgrade	Presence of other LAN (Ethernet/wireless) connections	Disable the rest of the LAN connections except the one SABRE™ I. Retry after SABRE™ I.
		The Ethernet cable is loose	Ensure the Ethernet cable is securely tightened and SABRE™ I to retry.
5.	Fails to transfer file to SABRE™ I during firmware upgrade	Incorrect upgrade package /file is selected.	Ensure the correct upgrade package/file is selected. Retry after restarting SABRE™ I
6.	SABRE™ I is registered to network but fails to make any voice call or data connection.	The stored GPS position is outdated (when SABRE™ I is not used for very long time) or the GPS position is not matching with the current geographic location (this is true especially if SABRE™ I was moved from one place to another place which is far away (e.g., 10 km or more)	Turn on SABRE™ I and select New GPS to obtain **new GPS** fix. Point SABRE™ I's antenna such that it has clear view to the open sky. If SABRE™ I is placed at an unobstructed open area, then it is recommended to make it lay flat facing the sky to obtain GPS fix quickly. If SABRE™ I is placed near window, then it is recommended to place it at about 45 elevation angle facing the clear sky to obtain a new GPS fix.